

Lewis & Clark College CATALOG 2003-04

# Lewis & Clark College Catalog 2003-04



Lewis & Clark College 0615 S.W. Palatine Hill Road Portland, Oregon 97219-7899 U.S.A. www.lclark.edu

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Lewis & Clark College is accredited by the Northwest Association of Schools and Colleges. Lewis & Clark is a member of the American Council on Education, the Association of American Colleges, the College Entrance Examination Board, and the Northwest Association of Private Colleges and Universities. The College is on the approved lists of the American Chemical Society and the American Association of University Women.

Lewis & Clark College reserves the right to withdraw courses at any time, change the fees, change the rules and calendar regulating admission and graduation requirements, and change any other regulations affecting the student body. Changes shall become effective whenever the proper authorities so determine and shall apply not only to prospective students but also to those who are matriculated in the College at the time. The contents of this catalog are based on information available to the administration at the time of publication.

Lewis & Clark College adheres to a nondiscriminatory policy with respect to employment, enrollment, and program. The College does not discriminate on the basis of race, color, creed, religion, sex, national origin, age, handicap or disability, sexual orientation, or marital status and has a firm commitment to promote the letter and spirit of all equal opportunity and civil rights laws, including Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964, the Age Discrimination Act, the Americans with Disabilities Act of 1990, and their implementing regulations.

Questions or complaints regarding the College's equal opportunity policies and practices may be directed to Jane Atkinson, vice president and provost, at 503-768-7200. Complaints of discrimination or harassment by faculty or staff may be directed to the contact persons for discrimination and harassment complaints, the appropriate dean, or the director of human resources, in accordance with the Discrimination and Harassment Complaint Procedure at www.lclark.edu/dept/hrpolicy/comp-proced.html.

Disability-related reasonable accommodation requests for academic or residence living matters may be directed to Dale Holloway, coordinator of student support services, at 503-768-7191. Questions about the Americans With Disabilities Act or reasonable accommodation requests by faculty or staff may be directed to Greg Walters, director of human resources and ADA coordinator, at 503-768-7835.

The security of all members of the campus community is of vital concern to Lewis & Clark College. Information about safety advice, the enforcement authority of the Office of Campus Safety, policies concerning the reporting of any crimes that may occur on campus, and crime statistics for the most recent three-year period may be requested from the Office of Campus Safety by calling 503-768-7855 or by visiting www.lclark.edu/~safety.

## Contents

### Lewis & Clark College 5

History of the College 6 Mission of the College 7

### Academic Information 9

Academic Calendar 10 The Liberal Arts 11 Program of Study 11 Graduation Requirements 12 Policies and Procedures 18

## Programs of Study 35

Academic Departments, Majors, Minors, and Programs: Academic English Studies 36 Art 38 Biochemistry 47 Biology 48 Chemistry 56 Communication 63 Computer Science 71 Core 71 East Asian Studies 72 Economics 77 Education 86 Engineering 89 English 91 English as a Second Language (see Academic English Studies) Environmental Studies 100 Foreign Languages and Literatures 107 Gender Studies 126 Geological Science 129 History 130

International Affairs 143

Latin American Studies 150
Mathematical Sciences 152
Music 160
Overseas and Off-Campus
Programs 174
Philosophy 177
Physical Education and Athletics 181
Physics 184
Political Economy 190
Political Science 191
Pre-Law 201
Pre-Med 202
Psychology 202
Religious Studies 210
Sociology and Anthropology 217

### General Information 239

Theatre 227

Academic Services and Resources 240 Student Services, Resources, and Programs 242 Cocurricular Opportunities 244 Admission 248 Costs 252 Student Financial Services 253 Financial Resources 260 Campus Buildings 267

Faculty, Administrators, Board of Trustees 275

College Profile 291

Campus Map 299

Index 305

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## History of the College

Lewis & Clark College was founded in 1867 as Albany Collegiate Institute by a group of Presbyterian pioneers in the Willamette Valley town of Albany, 60 miles south of Portland. From its beginning the College was a coeducational institution, enrolling 43 women and 43 men by 1869. The first class graduated in 1873.

In 1934 the College opened a lower-division extension in Portland. Soon Portland enrollments outstripped those of the Albany campus, and in 1938 all operations were moved to the city. In 1942 the Albany College trustees acquired through a gift-sale the Lloyd Frank "Fir Acres" estate in southwest Portland, selected Morgan Odell as the president for the new campus, and adopted the name Lewis & Clark College as a "symbol of the pioneering spirit that had made and maintained the College."

By 1960 the College was thriving, and in 1962 the Overseas Study Program was launched, adding a new dimension to the school. Since the program's founding, more than 8,600 Lewis & Clark students have lived and traveled in more than 66 countries on six continents as part of their degree work.

Established as the state's law school in 1884, Lewis & Clark Law School is Oregon's oldest school of law. Reorganized as a private institution in 1915, the law school merged with Lewis & Clark College in 1965.

In 1984 postgraduate programs in education, counseling psychology, and public administration were consolidated into the Graduate School of Education. The program in public administration was transferred to Portland State University in 1996.

Three presidents have succeeded Morgan Odell. John Howard was president from 1960 to 1981, James Gardner served from 1981 to 1989, and Michael Mooney became president in 1989 and concluded his term of office in 2003.

Lewis & Clark College is one of Oregon's largest independent colleges and an institution that looks far beyond Palatine Hill. The three schools of the College and their supporting offices occupy 57 buildings on a campus of 137 acres. Separately and together, they embrace and promote the values expressed in the College's motto: Explorare, Discere, Sociare (to explore, to learn, to work together).

## Mission of the College

The mission of Lewis & Clark College is to know the traditions of the liberal arts, to test their boundaries through ongoing exploration, and to hand on to successive generations the tools and discoveries of this quest. By these means the College pursues the aims of all liberal learning: to seek knowledge for its own sake and to prepare for civic leadership.

The College carries out this mission through undergraduate programs in the arts and sciences and postgraduate programs in the closely related professions of education, counseling, and law. The College mounts these programs as both separately valid and mutually supportive enterprises. In all its endeavors it seeks to be a community of scholars who are alive to inquiry, open to diversity, and disciplined to work in an interdependent world.

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## Academic Calendar, 2003-04

	Fall	Spring
Payment of semester tuition due	Aug. 15, 2003	Dec. 19, 2003
Residence halls open for new students	Aug. 27, 9 a.m.	
Parents Preview	Aug. 27-29	
New Student Orientation	Aug. 27-Sept. 1	
Residence halls open for all students	Aug. 31, 9 a.m.	Jan. 18, 9 a.m.
New student registration	Aug. 29-30	
Labor Day (no classes)	Sept. 1	
Martin Luther King Jr. Day (no classes)		Jan. 19
First day of classes	Sept. 2	Jan. 20
Last day to register	Sept. 12	Jan. 30
Last day to select credit-no credit	Sept. 12	Jan. 30
Last day to add courses	Sept. 12	Jan. 30
Last day to drop courses <sup>1</sup>	Sept. 12	Jan. 30
Fall break (no classes)	Oct. 9-12	
Midterm grades due	Oct. 17-31	Mar. 12-26
Registration for following semester <sup>2</sup>	Nov. 10-20	April 5-15
Registration advising	Oct. 15-Nov.7	Mar. 9-April 1
Last day to withdraw from a course <sup>3</sup>	Nov. 7	Mar. 26
Thanksgiving break (no classes)	Nov. 27-30	
Spring break (no classes)		Mar. 20-28
Last day of classes	Dec. 10	April 29
Reading days	Dec. 11-12	April 30-May 1
Final examinations	Dec. 13, 15-17	May 3-6
Vacation period begins	Dec. 18	May 7
Last day to make up incomplete grades:		
For spring 2003 semester	Sept. 26, 2003	
For fall 2003 semester	Feb. 13, 2004	
For spring 2004 semester		Oct. 1, 2004
Degree application filing deadlines:		
For December 2003 degree	May 1, 2003	
For May 2004 degree	Oct. 15, 2003	
For August 2004 degree		Mar. 1, 2004
Official degree date for each semester	Dec. 17, 2003	May 9, 2004
Commencement		May 9, 2004

<sup>1</sup> Instructor's approval is not required and course will not appear on transcript.

<sup>2</sup> Registration and advising dates may vary.

<sup>3</sup> Instructor's approval is not required; grade indicated on transcript will be W. Withdrawing from courses after November 7 for the fall semester and March 26 for the spring semester requires instructor's approval; grade indicated on transcript will be W.

### The Liberal Arts

An education in the liberal arts at Lewis & Clark serves both as an opportunity to explore classical and enduring ideas and as a touchstone for fresh inquiry. Students are encouraged to examine the heritage of Western civilization in the context of wider comparative and critical perspectives. They wrestle with difficult questions and their changing solutions, and by working intensively with the faculty they develop their abilities as thoughtful readers, effective writers, and articulate participants in intellectual discourse.

A liberal arts education at Lewis & Clark combines three interdependent curricular elements: the departmental major, a set of elective courses, and the General Education curriculum. In accordance with the principles of the liberal arts, the curriculum is structured so that roughly one-third of the credits are in the major, one-third are in electives, and one-third are in General Education. The major provides an opportunity to study a subject in depth and to master the modes of thought and analysis necessary to advance that study. Electives enable the student to try out and develop new interests. The General Education curriculum supports and enhances the other elements; it provides the general foundations for liberal learning. Its courses expand students' perspectives and essential skills, helping them become educated and thoughtful contributors to society.

Lewis & Clark considers the following elements to be essential to a liberal arts education:

- 1) Mastery of the fundamental techniques of intellectual inquiry: effective writing and speaking, active reading, and critical and imaginative thinking.
- 2) Exposure to the major assumptions, knowledge, and approaches in the fine arts, humanities, natural sciences, and social sciences.
- 3) Critical understanding of important contemporary and historical issues using modes of thought that are evaluative as well as descriptive and analytic, and that consider the relationship between thought and action.
- 4) Awareness of international and cross-cultural issues and gender relations.
- 5) Application of theory and knowledge developed in the liberal arts to the search for informed, thoughtful, and responsible solutions to important human problems.

The curriculum is built around these essentials, and the members of the faculty and the administration place their skills, resources, and services in support of these goals.

## Program of Study

The Lewis & Clark curriculum is planned on a model in which students normally take four 4-credit courses each semester. The academic year consists of two 15-week semesters. The standard course at the College is assigned 4 credits, and meets in class for three or more hours each week. Students should expect to spend an average of two hours outside of class preparing for each hour in class. The average student course load is 16 credits per semester.

The well-educated student knows how to write and speak clearly and effectively. Lewis & Clark's entire faculty shares the responsibility for instruction in these skills. Students therefore encounter significant writing requirements in a range of courses across the entire curriculum and, where appropriate, are encouraged to present their ideas orally in the classroom and in other public forums (such as senior thesis presentations to faculty and students).

## Graduation Requirements<sup>4</sup>

Undergraduate work at Lewis & Clark College leads to the Bachelor of Arts degree. The basic requirements for the degree are as follows:

- 1) Satisfactory completion of a minimum of 128 semester credits. A maximum of 60 semester credits in one academic department may be included in the 128 credits required for graduation.
- 2) Academic residency, defined as 60 semester credits taken at Lewis & Clark College, including at least 28 of the final 32 semester credits.
- **3)** A cumulative grade point average of 2.000 or higher.
- **4)** Satisfactory completion of the General Education requirements. (See details in following sections.)
- 5) Satisfactory completion of a major program approved by the chair of the appropriate department or by the chair of the Honors and Student-Designed Majors Committee. Students are required to complete at least 20 semester credits of coursework offered by the major department at Lewis & Clark.
- **6)** A cumulative grade point average of 2.000 or higher in all majors and minors.

## General Education Requirements

Lewis & Clark's General Education requirements consist of the core course Inventing America, described below, and other courses in the areas of International Studies, Scientific and Quantitative Reasoning, Creative Arts, Foreign Languages, and Physical Education/Activity. In addition, content-area courses require students to demonstrate skills involving writing/rhetoric, bibliographic knowledge, and information/ electronic competency.

In the spirit of the broad intellectual experience needed for a liberal education, a single course may not be used to satisfy two General Education requirements. To fulfill General Education requirements, courses other than Physical Education/Activity courses must be taken for a letter grade. (See Grading System in this catalog.)

#### INVENTING AMERICA (8 semester credits)

Inventing America, a first-year requirement for all first-year students, seeks to understand the present through exploration of the ideas,

<sup>4</sup> Graduation requirements in this catalog apply to students entering Lewis & Clark in September 2003 or later. Other students are subject to the requirements in effect when they entered and should refer to the appropriate catalog.

values, and competing interests behind the founding of the American republic and the framing of its Constitution. The course explores the continuing evolution of the idea and practice of the American democratic experiment by following the struggles of persons and groups to achieve citizenship and cultural presence in the nation.

This two-semester, substantially common-syllabus course is grounded in the belief that the making and evolution of American society are both familiar and unfamiliar to first-year students. To study other cultures and societies, students need a grasp of their own. The course gives students a yearlong, substantially common experience shared readings, writing assignments, library and computer exercises, lectures, and films. Above all, the course engages the entire first-year class in an intellectual, cultural, and social experience with variations respectful of the diversity of American life.

Credits for this course may not be applied toward the fulfillment of any other requirement. Students normally may not withdraw from this

Inventing America is complemented by a requirement to take two courses of international study, either overseas or on campus. Students fulfilling the International Studies requirement on campus may select from a list of courses in the arts and humanities and social sciences. This complementary four-course requirement reflects the view that a modern liberal arts education should provide students, as informed citizens, with the opportunity to effectively engage the traditions, values, and developments in their own country and of other cultures, and to explore the interactions between the two.

(See course descriptions under Core in the Programs of Study section of this catalog.)

### CORE REQUIREMENT FOR TRANSFER STUDENTS

Students who transfer to Lewis & Clark in the fall with fewer than 16 semester credits must take Inventing America (Core 110 and 111) in the year they enter the College. Students transferring in the fall with 16 to 28 semester credits are required to take either Core 110 during their first semester or Core 111 the following spring. They are invited, but not required, to take both semesters (Core 110 and 111), but in either case the Inventing America requirement must be taken in the first year at the College. If they elect to take only Core 111, they must take a course from a list of approved substitutes for Core 110 or present transfer credit for a course equivalent to Core 110.

Students who transfer to Lewis & Clark in January with fewer than 16 semester credits must take Inventing America (Core 111) in the spring semester and Core 110 the following fall semester. Students who enter in January with 16 to 28 credits may meet the requirement by taking either Core 111 or a substitute course (list available from the Office of the Registrar) in the spring semester and Core 110 the following fall semester; or by taking either Core 111 upon entering in the spring and Core 110 or a substitute course the following fall semester. Students who enter in January and agree to take Core 110 and 111 may begin this sequence in the fall of the year they enter.

Students who transfer to Lewis & Clark with more than 28 credits must satisfy the Core 110-111 requirement by taking two courses—one from the list of approved substitutes for Core 110 and one from the list of approved substitutes for Core 111—or present transfer credit for courses equivalent to Core 110 and 111.

Substitutes for Inventing America may not be used to fulfill any other requirement. College credit earned in high school may not be applied toward Core 110 or Core 111.

#### RHETORIC IN THE FIRST-YEAR COURSE

The first-year course provides students with a sustained opportunity to develop and hone their skills in reading, writing, and speaking. Over the two-semester course, students engage a diverse array of textual materials that call upon their critical skills as readers. They advance their strength and confidence as writers of college-level work through regular practice, constructive feedback from faculty and peers, and opportunities to revise and polish their work. One of the goals of Inventing America is to help first-year students improve as speakers in command of rhetorical choices and strategies. This purpose refers to the ability to speak persuasively and present ideas with some formality in front of a group as well as informally in class discussion. Class sessions are structured to foster thoughtful and articulate discussion of key texts and central ideas of the course.

In addition to regular feedback on writing assignments, faculty provide assessments of student writing four times during the year (at the middle and end of each semester). Faculty will provide as much assistance as possible in helping students develop their writing. The Writing Center, which offers various workshops and one-on-one conferences on writing, is an excellent resource for all students.

#### INTERNATIONAL STUDIES (8 semester credits)

To become educated citizens of an interdependent world, all Lewis & Clark students are expected to engage in a significant manner with a region of the world other than the United States through study of historical experiences, cultural traditions, social and economic realities, and transnational issues.

Students may meet this requirement in one of three ways:

- 1) Completion of International Studies 240 and 241 on a Lewis & Clark overseas study program (8 semester credits).
- 2) Completion of a total of 8 semester credits from a Lewis & Clark overseas study program in coursework, not specified as International Studies 240 and 241, but dealing with the unique history and culture of the host country. If necessary, the registrar consults relevant departments to determine whether a particular course is applicable.
- **3)** Credits in language instruction do not apply.
- 4) Completion of two courses (8 semester credits) on campus from courses listed below.

Art 152, 153, 254, 352, 356 Chinese 230, 290, 410 Communication 340, 430

East Asian Studies 100 Economics 232, 280, 295, 314 English 319 French 230, 330, 340, 410, 450 Gender Studies 231 German Studies 230, 410, 411 (Munich only), 450 Greek 298 History 110, 111, 112, 120, 121, 141, 142, 209, 210, 211, 213, 214, 215, 217, 218, 221, 222, 225, 226, 228, 242, 310, 311, 315, 316, 320, 323, 327, 328, 345, 347, 348, 398 International Affairs: All courses Japanese 230, 290, 410 Music 105, 276, 305, 306, 318 Philosophy 201, 301 Political Science 102, 250, 315, 317, 320, 325, 349<sup>5</sup> Religious Studies 241, 242, 243, 251, 354, 450, 452 Russian 100, 230, 290 Sociology/Anthropology 225, 266, 271, 272, 273, 275, 281, 285, 291, 330, 350, 377 Spanish 230, 380, 390, 410, 440, 450 Theatre 251 (London)

### SCIENTIFIC AND QUANTITATIVE REASONING (12 semester credits)

Just as liberally educated people have knowledge and appreciation of the humanities, creative arts, and social sciences, and have the ability to communicate clearly and effectively, they also have knowledge and appreciation of science and know how to reason scientifically and quantitatively. Therefore a liberal education must include the study of mathematics and the natural sciences and an understanding of their methods of inquiry. Such understanding includes familiarity with the observational procedures employed by all of the sciences: as in laboratory and field work; the theories and methods that constitute the tools and subject matter of scientific research; and the quantitative, qualitative, philosophical, social, and aesthetic dimensions of work in the natural and social sciences.

All graduates from Lewis & Clark College are expected to gain experience in quantitative reasoning, ranging from making rough quantitative estimates to solving word problems using algebra and logic, understanding graphically presented information, and using modern electronic devices such as calculators and computers.

To foster this understanding and experience, students at Lewis & Clark College must complete at least two courses in natural science study and an additional course in quantitative reasoning.

The Scientific and Quantitative Reasoning requirement can be fulfilled by taking at least one course that includes a laboratory component (selected from the Category A course list) and two courses that include a significant amount of mathematical and quantitative reasoning (at least one selected from Category B and the other

<sup>5</sup> A 2-semester-credit course must be combined with another course for a minimum of 4 semester credits.

selected from the Category B or C course lists). Courses fulfilling the requirement are listed below.

### Category A: Science Laboratory

(All students must take one course.)

Biology: 100, 115, 141, 151, and all courses at the 200 level that

include laboratory

Chemistry: 100, 105, 110, 115, 120, 135, 210, 220

Geology: 150, 280

Physics: 107, 141, 142, 151, 152, 201

Category B: Mathematical and Quantitative Reasoning: Sciences<sup>6</sup> (All students must take one course, and may take two courses.)

Chemistry: 100, 110, 115, 120, 135

Environmental Studies: 210

Mathematical Sciences: all mathematics and computer science courses

in the department except Mathematics 055

Physics: 105, 107, 110, 141, 142, 151, 152, 202, 205, 251, 252 Category C: Quantitative Reasoning: Humanities and Social Sciences

(Students may take one course.)

Communication: 260 Economics: 100, 103, 212

Philosophy: 101

Political Science: 201, 252 Psychology: 200, 300, 311 Sociology/Anthropology: 201

So that mathematical and natural science students acquire a breadth of understanding of the sciences as a whole, they are expected to take the Category A and B requirements from disciplines outside their major department. Also, students are encouraged to take a third course in Category C to broaden their horizons.

#### CREATIVE ARTS (4 semester credits)

The distinctive element of the creative arts lies in the creative process itself, the mobilization of often nonverbal, intuitive, and emotional resources in providing new understandings about and insights into human existence. The practice and study of the creative arts can increase students' appreciation of the artistry of others, and stimulate and enhance learning of all kinds. Students at Lewis & Clark College should therefore acquire, as part of their general education, an appreciation for and understanding of this unique way of knowing and experiencing the world.

Students may fulfill the Creative Arts requirement either by

<sup>6</sup> To register for Category B and many Category A and C courses, the student must meet one of the following criteria: a) passing a math proficiency examination administered during New Student Orientation or during the school year; b) receiving a SAT I math score of 630 or higher; c) receiving an ACT math score of 30 or higher; d) completing a high school calculus course with a grade of B or better; e) receiving a score of 4 or 5 on an AP exam in Calculus AB or BC, Computer Science, or Statistics; f) successfully completing Mathematics 055. Some courses in all categories have additional prerequisites (see course descriptions).

engaging in the creative process itself through courses in studio art such as ceramics, design, pottery, or drawing; or in artistic performance (music, dance, theatre, creative writing); or by the historical and theoretical study of artistic production, including, where possible, a studio component. In recognition of the importance of arts in our culture, students are encouraged to explore a broad range of courses in the arts. Students majoring in the creative arts must satisfy this requirement outside their majors. Courses fulfilling the Creative Arts requirement are listed below.

Art: All courses English 108, 300, 301 Music: All courses Philosophy 203 Theatre 1067, 1077, 1087, 113, 2077, 2087, 209, 213, 214, 215, 224, 226, 250, 251, 252<sup>7</sup>, 275, 281, 282, 283, 308, 313, 350, 351, 352, 353, 381, 382

### FOREIGN LANGUAGES (three-semester requirement)

The acquisition of a language other than one's own has always been a hallmark of a liberal education. In today's increasingly interdependent world this is all the more true. Only by learning the language of another people is one able to adequately understand the subtleties and nuances of its culture, for language is the gateway to all cultures.

At Lewis & Clark College in particular, studying a second language has a place of central importance—both because of the College's historical commitment to international studies and because providing all students with an encounter with another culture has become a defining feature of the undergraduate program of studies. Not only does language study open up our appreciation for and sensitivity to other parts of the world, it also better enables us to understand and appreciate our own native language. For these reasons, Lewis & Clark College requires of its students the serious study of at least one language other than English.

The College has a three-semester Foreign Languages requirement for all students. This requirement may be satisfied in one of the following ways:

- 1) Completion of a foreign language through the 201 level, or
- 2) Completion of an approved language-based overseas program (the list of approved programs is available from the Office of Overseas and Off-Campus Programs), or
- **3)** Placement into 202 or above on the foreign language placement examination, or
- **4)** A score of 4 or 5 on an Advanced Placement Language or Literature Examination; or a score of 5, 6, or 7 on an International Baccalaureate Higher Level Language Examination.

International students whose first language is not English are

<sup>7</sup> The requirement may be met by taking one beginning and one advanced technique course in the same area such as ballet or contemporary dance forms, or by taking one technique course and Theatre 355. Four semester credits are required to fulfill the Creative Arts requirement.

exempt from the Foreign Languages requirement.

#### PHYSICAL EDUCATION/ACTIVITY (two semester courses)

Physical education is one facet of a total educational program that stresses the interrelationship and interdependence among the physical, mental, and social dimensions of human experience. Therefore, students are required to take a minimum of two semester courses during their degree program that engage them in physical exercise. In these courses, students are encouraged to recognize the importance of physical activity as a lifelong pursuit.

Courses offered in Physical Education and Athletics that may be counted toward this requirement are numbered 101, 102, and 142. Theatre dance courses that may be counted toward this requirement are: 106, 107, 108, 207, 208, 252, 308, 350. Theatre courses counting toward this requirement may be taken credit-no credit. Music Performance 150 may be counted toward this requirement.

Students may register for no more than one 101 course per semester. The maximum credit in Physical Education and Athletics 101, 102, and 142 courses that may be applied toward the 128 credits required for graduation is 4 semester credits. Up to eight 1-credit courses may be recorded on the transcript (within the regulations outlined above), but only 4 credits will count toward graduation.

### LIBRARY USE, BIBLIOGRAPHIC INSTRUCTION, AND Information/Electronic Competency

Information literacy means having the ability to locate, acquire, analyze, synthesize, and structure information. This includes the ability to understand the variety of contents and formats of information; to understand systems for organizing information; to retrieve information; and to evaluate, organize, and manipulate information. As students complete content courses in all academic departments, they also learn to locate and apply information available in libraries, in electronic databases, and on the Internet. Students also work with a variety of computer software appropriate to their academic fields and interests.

## Policies and Procedures

## Academic Integrity Policy

#### PRINCIPLES OF CONDUCT

The community of scholars at Lewis & Clark College is dedicated to personal and academic excellence. Joining this community obligates each member to observe the principles of mutual respect, academic integrity, civil discourse, and responsible decision making.

### ACADEMIC INTEGRITY

Academic integrity finds its genesis in the fundamental values of honesty, tolerance, respect, rigor, fairness, and the pursuit of truth. Scholarship is at the heart of this academic community, and trust between faculty and students is essential to the achievement of quality scholarship. At times scholarship is collaborative, at times independent. All sources, both written and oral, should be properly cited. Acts of academic dishonesty are contrary to the mission of the College and constitute a serious breach of trust among community members.

#### ACADEMIC INTEGRITY IN PRACTICE

Lewis & Clark College believes that each member of the community is responsible for the integrity of his or her individual academic performance. In addition, because each act of dishonesty harms the entire community, all individuals—students, faculty, and staff members alike—are responsible for encouraging the integrity of others: by their own example, by confronting individuals they observe committing dishonest acts, and/or by discussing such actions with a faculty member or academic dean, who will respect the confidentiality of such discussions. When any individual violates this community's standards, the College is committed as a community to take appropriate steps to maintain standards of academic integrity.

Acts of academic dishonesty involve the use or attempted use of any method or technique enabling a student to misrepresent the quality or integrity of his or her academic work.

Academic dishonesty with respect to examinations includes but is not limited to copying from the work of another, allowing another student to copy from one's own work, using crib notes, arranging for another person to substitute in taking an examination, or giving or receiving unauthorized information prior to or during the examination.

Academic dishonesty with respect to written or other types of assignments includes but is not limited to: failure to acknowledge the ideas or words of another that have consciously been taken from a source, published or unpublished; placing one's name on papers, reports, or other documents that are the work of another individual, whether published or unpublished; flagrant misuse of the assistance provided by another in the process of completing academic work; submission of the same paper or project for separate courses without prior authorization by faculty members; fabrication or alteration of data; or knowingly facilitating the academic dishonesty of another.

Academic dishonesty with respect to intellectual property includes but is not limited to theft, alteration, or destruction of the academic work of other members of the community, or of the educational resources, materials, or official documents of the College.

For more information about the College's academic integrity policy, consult The Pathfinder (Student Handbook), the Office of the Dean of the College, or the Office of the Dean of Students.

## Academic Standing

#### ACADEMIC STANDING RULES AND REGULATIONS

Students' academic standing is monitored by the faculty Committee on Admissions, Awards, and Academic Standing, which notifies a student when his or her performance is found to be unsatisfactory. Unsatisfactory performance may be the result of unsatisfactory grades, unsatisfactory completion of registered coursework, or both. The major concerns of the committee are the welfare of the student and the

student's ability to maintain satisfactory grades and satisfactory progress. In fulfilling this responsibility, the committee uses a set of report categories to inform a student when performance is less than satisfactory. Students and their academic advisers are notified of all actions taken. These categories are as follows:

**Warning** An Academic Warning is used by the committee to express its concern that a possible problem is developing. The warning may recommend certain procedures and resources available to the student that can help to remedy the problem. Generally a warning is issued if the student's current or cumulative GPA falls below 2.000 or if the student fails to complete a significant proportion of the semester hours in which he or she was registered. Other circumstances may cause the committee to invoke a warning as well. Warnings are not recorded on the student's official transcript.

**Probation** Academic Probation is used by the committee to notify the student that a problem exists. This normally happens following one or more semesters in which a student has received a warning and there is a pattern of unsatisfactory grades and/or failure to complete registered courses. However, the committee may place a student on probation without a prior history of academic warning if the student's record warrants such action. In a letter to the student, the committee will state the reason(s) for the probation, such as failure to achieve satisfactory grades and/or failure to make standard academic progress, and any conditions that the student must meet. Failure to meet these conditions normally results in suspension from the College. A student is in academic good standing who is not on probation. Probationary status is noted on the student's transcript.

**Suspension** Academic Suspension is used by the committee to notify the student of his or her ineligibility to enroll in the College for a specified period of time, normally two semesters. Suspension for less than two semesters will be a result of mitigating circumstances as evaluated by the committee. Upon suspension the student is given criteria that must be met before consideration for readmission. If there are extenuating circumstances unknown to the committee, a student may submit a written request to the committee through the Office of the Registrar for reconsideration of suspension.

In order to be readmitted following suspension, a student must submit a written petition to the Committee on Admissions, Awards, and Academic Standing. The request for reinstatement should contain the following:

- 1) Personal assessment of the reason for poor performance.
- 2) An explanation of how the student plans to overcome the difficulty, along with a proposed academic plan.
- 3) An official transcript of all coursework done elsewhere during the time of absence from Lewis & Clark.

After the prescribed conditions of Academic Suspension have been met, the committee reviews the student petition for readmission and, if the committee approves, the student is reinstated on probation. The committee specifies a level of academic performance that is

required for the student to remain at the College. The required level of performance includes grades and credits to be earned in order for the student to proceed to a timely graduation. If these requirements are not met, the committee considers dismissal.

**Dismissal** If after reinstatement to the College a student is suspended a second time, the student is permanently dismissed with no further opportunity to enroll at Lewis & Clark College.

Withdrawal Students may request permission to withdraw from the College during the semester by submitting the appropriate form to the coordinator of student support services or the coordinator of academic advising. The Student Development Center clears the request for withdrawal with instructors and then certifies to the registrar that withdrawal has been authorized. The College determines the amount of any tuition refund according to the date of notification. Failure to officially withdraw may result in failing grades and may jeopardize the student's eligibility to reenroll or to transfer to another institution.

In case of illness or emergency, the student must notify the Student Development Center so that the office can initiate formal withdrawal procedures.

#### COCURRICULAR ELIGIBILITY

In order to participate in certain cocurricular activities such as student government or varsity athletics, a student must be registered for a fulltime program of study and must be in academic good standing.

#### DEFINITION OF CLASS STANDING

Class standing is based on the total number of completed credits:<sup>8</sup>

First year: 0–28 semester credits. Sophomore: 29–60 semester credits. Junior: 61-92 semester credits.

Senior: 93 semester credits and above.

#### STANDARD ACADEMIC PROGRESS

Standard Academic Progress is based on the completion of 128 semester credits over a four-year or eight-semester period, which will normally require completion of 32 semester credits per year. Some variation of up to 3 semester credits below this level is permitted, but the cumulative total of semester credits completed by the end of each year must be equivalent to the number required for promotion to the next class standing. Thus, a student is deemed to be making standard academic progress who completes 29 semester credits by the end of the first year, 61 semester credits by the end of the second year, and 93 semester credits by the end of the third year. Math 055 is considered part of the academic course load and is used to calculate standard academic progress, but it cannot be counted as part of the 128 semester credits required for graduation.

The College recognizes that personal circumstances sometimes interfere with the ability to make standard academic progress. Students who plan to complete their degree over a longer than normal period should

<sup>8</sup> Completed credits are those that apply toward the 128 semester credits required for graduation, including transfer credits and credits by examination.

consult with their adviser or the coordinator of academic advising and, if necessary, with the Office of Student Financial Services.

## Advanced Standing

#### ADVANCED PLACEMENT/INTERNATIONAL BACCALAUREATE

Lewis & Clark grants 4 semester hours of credit for Advanced Placement (AP) scores of 4 or 5, except for Calculus BC, which is granted 8 semester hours of credit.

The College also recognizes the International Baccalaureate (IB) academic program. Four semester hours of credit are granted for scores of 5 on the higher-level exams, or 8 semester credits for scores of 6 or 7 on the higher-level exams, or 16 semester credits for completion of the IB diploma with a score of 32 to 35, or 24 semester credits for a score of 36 or higher.

Credit granted through the AP or IB program is considered elective credit toward graduation and may not be used to fulfill General Education requirements, except for foreign language and literature examinations.

The chart below shows treatment of AP and IB credit in some academic departments with regard to placement in the curriculum and major requirements. To find out whether AP or IB test results can be used for placement within the curriculum of a department not listed here, students should consult the department chair.

Elective credit toward	Course equivalent or placement
major requirements	or placement
AP 5 or IB 7: Four credits toward	
43 credits required for major.	AP 5 or IB 7 considered
AP 4 or IB 6: Credits granted toward graduation are not used as elective credits toward the major.	equivalent to Biology 141 or 151, depending on specific focus of AP or IB course. Consult department chair for placement.
	AD 5 ID 7 1
AP 4 or IB 6: Credits granted toward graduation are not used as elective credits toward the major.	AP 5 or IB 7 results in placement into Chemistry 120 or 210. Considered equivalent to Chemistry 110, a 5-credit course, though only 4 credits are granted toward graduation. AP 4 or IB 6: Student may petition for placement into Chemistry 120.
microeconomics and macroeconomics or in statistics: Four credits toward 44 credits required for economics major.  AP 4 or 5 in <i>statistics</i> : Also applies toward major as described above.	AP 4 or 5, or IB 6 or 7 in both microeconomics and macroeconomics considered equivalent to Economics 100.  AP 4 or 5 in <i>statistics</i> considered equivalent to Economics 103.
	AP 4 or 5, or IB 6 or 7 in both microeconomics and macroeconomics or in statistics: AP 4 or 5 in statistics: Also applies

		AP 4 or 5, or IB 6 or 7 results in placement into English 205 or 206. Consult department chair for placement.		
Environmental Studies	AP 5: Four credits toward 63 credits required for major.	AP 5 considered equivalent to Biology 141.		
Foreign Languages and Literatures	Credits received for AP or IB exam- results are not accepted toward a major in this department because major requirements begin at the 300 level.	AP 4 or 5 on language or literature examinations and IB 5, 6, or 7 on higher-level examinations meet General Education requirement in foreign languages.		
History		AP 4 or 5, IB 6 or 7 suggests students are eligible for 200-or 300-level history courses.		
Mathematical Sciences				
Calculus	AP Calculus 4 or 5: No more than 8 credits for Calculus AB and BC will be awarded.  Credits received for AP exam results are not accepted toward a major in this department because major requirements begin with higher-level courses.	AP Calculus AB 4 or AP Calculus BC 3 suggests students are ready for Mathematics 132. AB 5, or BC 4 or 5 suggests students are ready for Mathematics 215 or 233.		
Computer Science		AP 5 considered equivalent to Computer Science 171. Consult department chair for placement.		
Statistics	AP 4 or 5: Four credits toward either the economics major or the psychology major.	AP 4 or 5 considered equivalent to Economics 103 or Psychology 200.		
Physics		AP 5 in Physics C (mechanics) considered equivalent to Physics 141 or 151. Consult department chair for placement.		
Political Science	AP 5 in U.S. history may be counted toward political science major upon appoval of the department. Consult department chair for details.			
Psychology	AP 4 or 5 or IB 6 or 7: Four credits	Continued on next page		
		<u> </u>		

toward 40 credits required for major.	AP 4 or 5, IB 6 or 7
AP 4 or 5 in <i>statistics</i> : Also applies toward major as described above.	considered equivalent to Psychology 100. However, students with AP 4 or IB 6 are encouraged to enroll in Psychology 100.
	AP 4 or 5 in statistics considered equivalent to

Psychology 200.

See also Graduation Requirements in this catalog (Scientific and Quantitative Reasoning [footnote 6] and Foreign Languages).

#### CREDIT BY EXAMINATION

Students interested in challenging a Lewis & Clark course (seeking credit for it by examination) should consult the Office of the Registrar for faculty policy and procedures. Credit is not granted for College-Level Examination Program (CLEP), life experience, or credit by examination from other colleges.

### Course Registration

#### Course Load and Overload Policy

Students must complete a minimum of 128 semester credits for graduation. The normal full-time course load is 16 semester credits. Students may register for less than a normal load in a particular semester. To be considered full-time, a student must take at least 12 semester credits. Students who wish to overload (register for more than 19 semester credits) must have a 3.000 cumulative grade point average and obtain written approval from their academic adviser on a card provided by the registrar. Faculty policy recommends that a request to overload be carefully reviewed, taking into account the student's overall academic performance, as well as his or her current schedule. The maximum for which a student may enroll in one semester is 21 semester credits.

#### Course Numbering

Courses numbered at the 100 level are considered introductory; at the 200 level, intermediate; and at the 300 and 400 levels, advanced. Class standing should generally be used as a guide to enrollment in courses at each level. (For example, first-year and sophomore students generally take 100- and 200-level courses.) Exceptions may be made, taking into account an individual student's academic experience.

#### CROSS-REGISTRATION

**Graduate School of Education** An undergraduate student may be eligible to register for courses in Lewis & Clark's Graduate School of Education if he or she has:

- 1) Completed 93 undergraduate semester credits.
- 2) Obtained the consent of the graduate course instructor and graduate registrar.

In order to apply credit earned in a Graduate School of Education course to an undergraduate major, the student also needs approval in advance from the major department chair in the College of Arts and Sciences.

Other Private Colleges and Universities Lewis & Clark College participates in a cross-registration program with other members of the Oregon Independent Colleges Association (OICA). Under this program, full-time Lewis & Clark students may enroll in one undergraduate course per semester at another OICA campus without paying additional tuition. However, the host campus may charge special course fees (such as laboratory fees) that apply to all students enrolled in the course. Not all courses at host institutions are covered by the program.

Cross-registration through the OICA program requires approval of both the Lewis & Clark registrar and the host campus registrar. (Approval of both registrars is also required to drop a cross-registered course.) Students should ask their adviser or department chair for information on cross-registered courses that meet program or major requirements.

Students may not cross-register for a course already offered at Lewis & Clark unless there is a legitimate scheduling conflict. Exceptions to this rule must have approval of both campus registrars. Further details on the cross-registration program and a complete list of participating institutions are available from the Office of the Registrar.

#### INDEPENDENT STUDY AND PRACTICUM REGULATIONS

Course Credit Credit for certain courses varies according to the student's involvement, but a single course may not exceed 4 semester credits in a given semester. A student must obtain approval from the Honors and Student-Designed Majors Committee if more than 28 practicum and independent-study semester credits are to be applied toward graduation requirements.

**Grading** Grading is the same as for regular College courses. **Course Requirements** Specific requirements for a course must be agreed upon at the time of registration. A schedule of faculty-student conferences should be outlined and observed during the course. Course Numbering Independent-study courses are listed as 299 or 499. Practicum courses are listed as 244 or 444.

**Registration** Special course cards for independent study and practicum registration are available in the Office of the Registrar. Students must obtain signatures from the supervising instructor and the chair of the department in which the independent study or practicum is planned. Normal registration deadlines apply. (See Academic Calendar in this catalog.)

#### REPEATED COURSES

Certain courses may be taken more than once for credit toward the degree (see individual course descriptions). Otherwise, courses that are repeated may not be counted for credit toward the degree. For example, if a student repeats a particular course in order to improve the grade, the College counts the course credits only once toward graduation requirements. Both the original grade and the repeated

grade are used in calculating the student's grade point average and will appear on the transcript.

#### REGISTRATION CHANGES

To add courses after preregistration, students must obtain the instructor's signature on the Add/Drop/Withdraw Form, and file the completed form in the Office of the Registrar during the first two weeks of the semester. Students are not permitted to add courses after the second week.

To drop courses, students must file a completed Add/Drop/Withdraw Form by the end of the second week of the semester. For Inventing America, the required first-year course, students normally will not be permitted to withdraw.

First-year students must obtain signatures from their academic advisers to add or drop courses.

Courses from which a student withdraws after the second week appear on the transcript with the grade recorded as W (withdrawal). Students are permitted to withdraw from a course (except Inventing America) until the end of the 10th week of the semester by filing an Add/Drop/Withdraw Form. Withdrawal after the 10th week of the semester requires consent of the course instructor.

### Final Examinations

Lewis & Clark College has a four-day final examination period. In fall semester, final examinations are held on Saturday, Monday, Tuesday, and Wednesday with two reading days scheduled on the preceding Thursday and Friday. In spring semester, the final examination period begins on Monday and extends through Thursday with two reading days scheduled on the Thursday and Friday preceding the final examination week.

Students who have three examinations scheduled on the same day will be allowed to reschedule one of their exams to another day. Students must initiate a request to the faculty involved, and the faculty will determine which examination may be rescheduled within the examination period.

## Degree Application Deadlines

Seniors must file a degree application during the semester following completion of 92 semester credits. This allows the registrar sufficient time to review the application and to inform the student of any inconsistencies or remaining requirements. Deadlines for filing degree applications are:

October 15, 2003, for May 2004 degree date. March 1, 2004, for August 2004 degree date. May 1, 2004, for December 2004 degree date.

## Family Educational Rights and Privacy Act

Lewis & Clark College follows policies in the maintenance and distribution of student records that are in conformity with the Family Educational Rights and Privacy Act of 1974 (The Buckley Amendment). The abbreviated text of these policies is published annually in the student handbook (The Pathfinder), the Guide to Registration, and on the Web at www.lclark.edu/dept/reg.

## Grading System

#### GRADES

of the course.

The registrar compiles and maintains permanent academic records for all students. Letter grades are assigned by instructors on the following basis:

A Outstanding work that goes beyond analysis of course material to synthesize concepts in a valid and/or novel or creative way.

**B** Very good to excellent work that analyzes material explored in class and is a reasonable attempt to synthesize material.

C Adequate work that satisfies the assignment, a limited analysis of material explored in class.

**D** Passing work that is minimally adequate, raising serious concern about readiness to continue in the field.

**F** Failing work that is clearly inadequate, unworthy of credit. **DFD** Deferred. A temporary designation normally used at the end of a semester for a course continuing for two semesters or more. When the full sequence is completed, the College gives a grade representing the degree of mastery finally achieved. The grade applies to all semesters. I Incomplete. An Incomplete grade may be given at the discretion of the instructor when a student has been unable to complete the coursework in the normal time period. It is the responsibility of the individual faculty member—in consultation with the student—to decide whether the student has a legitimate reason for not completing the work on time. In general the Incomplete grade is used when

circumstances beyond the control of the student prevent completion

When the instructor decides that an Incomplete is appropriate, an Incomplete Grade Form, obtained from the Office of the Registrar, is filled out and signed by the faculty member and, whenever possible, by the student. The form includes a statement of the reason for granting the Incomplete and the date by which the Incomplete will be made up. This date may be no later than the end of the fourth week of the following semester, unless otherwise arranged by the faculty member of record and the registrar. This form is submitted to the registrar along with the final grades for the semester.

By the agreed date, the instructor may change the Incomplete to a grade based on the instructor's evaluation of the coursework. In no case will an Incomplete be carried longer than 12 calendar months from the last day of the semester when the course was taken. An Incomplete may not be carried beyond the student's graduation date. Graduating juniors and seniors receiving Incomplete grades must consult the registrar's office to determine a new graduation date. Upon expiration, an unresolved Incomplete becomes an F or NC, depending on the grading option for the course.

CR-NC Credit-No Credit. Successful completion of course requirements at the level of C (2.000) or higher is signified on the transcript by Credit (CR). Students who fail to successfully complete the requirements at the level of C (2.000) receive a designation of No Credit (NC).

Most courses are offered for a letter grade. In certain cases, a student may request the CR-NC option by filing a special form with the registrar during the add/drop period at the beginning of the semester. Consent of the instructor is required for the CR-NC option in regularly graded courses. This option may not be changed after it is filed.

In courses designated CR-NC only, a student may not request a letter grade. CR-NC grades are not used for calculating the student's GPA. The College does not limit the number of courses that may be taken on a CR-NC basis.

Note: Courses taken to fulfill General Education requirements (except Physical Education/Activity courses) may not be taken with the CR-NC option.

W Withdrawal. Withdrawal from a course after the second week is recorded on the transcript with the designation of W. Withdrawal after the end of the 10th week requires consent of the course instructor. This withdrawal policy does not apply to Inventing America, the twosemester course for first-year students.

#### GRADE POINT AVERAGE

Letter grades are converted to a numerical equivalent as follows:

A 4.0 points/semester credit C 2.0 points/semester credit C- 1.7 points/semester credit A-3.7 points/semester credit B+3.3 points/semester credit D+1.3 points/semester credit B 3.0 points/semester credit D 1.0 points/semester credit B- 2.7 points/semester credit F, DFD, I, W, CR-NC: no points C+2.3 points/semester credit

The grade point average (GPA) is calculated by dividing the total number of grade points by the number of semester credits carrying numerical equivalent grades. Excluded from the GPA calculation are all courses in which the designation DFD, I, W, or CR-NC was awarded. The College requires a minimum cumulative GPA of 2.000 for graduation, i.e., a C average. This GPA is based entirely on Lewis & Clark coursework.

#### GRADE REPORTS

The Office of the Registrar processes grades during the two weeks following examinations. Students may access their grades online. Students who wish to have their grades mailed must submit their request in writing to the Office of the Registrar.

#### ACADEMIC GRIEVANCE PROCEDURE

If a student alleges that a final grade in a course is an inaccurate

<sup>9</sup> The single exception to this rule is that a faculty member may assign a grade of F if a student is found guilty of a violation of the College's Academic Integrity Policy.

reflection of his or her performance, the student should first attempt to resolve the matter with the individual faculty member.

If unable to reach a resolution, the student and faculty member will request assistance from the department chair. If this attempt at resolution is unsuccessful, either party may submit a formal written appeal to the divisional dean or an appropriate surrogate. The decision of the divisional dean or surrogate in matters of academic grievances is final.

In academic programs where courses offered are not assigned to an academic division of the College, such as overseas study programs or Academic English Studies, a student should first attempt to resolve the matter with the course instructor. If unable to reach a resolution, the student and the instructor should discuss the matter with the program director, and proceed to the dean of the College for final resolution if necessary. In this instance the decision of the dean of the College is final.

No grade may be changed after one year from the date of issuance.

### Honors

Most departments recognize student academic achievement through an honors program for which students may be nominated or may apply. Honors standing requires a minimum cumulative and major grade point average of 3.500 or higher and successful completion of a senior project in the student's major. Details are included under the appropriate departmental headings.

Degrees with distinction are awarded on the basis of students' overall academic record at Lewis & Clark College (minimum 60 credits): cum laude (with honors), 3.700 to 3.799; magna cum laude (with high honors), 3.800 to 3.899; summa cum laude (with highest honors), 3.900 to 4.000.

The Dean's List honors academic achievement each semester. Students who are enrolled full time and achieve a GPA of 3.700 or higher, based on 12 graded semester credits, are named to the Dean's List and this distinction is recorded on their transcript for the semester.

The Dr. Robert B. Pamplin Jr. Society of Fellows singles out and brings together students and teachers of the highest caliber in a lifelong association beginning with study at the College. The fellows are chosen by the president of the College from students who show exceptional potential for leadership, maintain a superior GPA (normally 3.500 or higher), demonstrate an interest in physical fitness, and conduct themselves in an exemplary manner marked by integrity and service to others. Within its fundamental commitment to recognize outstanding merit, the Pamplin Society is strongly committed to ethnic diversity in its membership.

The Rena Ratte Award is made annually to recognize a senior whose abilities and commitment have combined to produce work of the highest distinction. Colleagues, students, and friends of the late Professor Ratte established this award in 1970 in memory of a distinguished philosopher and esteemed teacher.

Phi Beta Kappa, the nation's oldest honor society, established a Lewis & Clark chapter in 1997. Members are chosen for academic excellence and breadth in the liberal arts as well as good character. For more information see the Web at www.lclark.edu/~pbk.

The AAUW Senior Woman Award, sponsored by the American Association of University Women, recognizes a senior of outstanding scholarship, character, personality, contributions to campus and community life, and potential for future achievement.

The College holds an annual convocation to honor students who are awarded departmental and collegewide honors.

## Leave of Absence/Readmission/Withdrawal

#### LEAVE OF ABSENCE

Students who wish to leave Lewis & Clark College for a period of time must apply for a Leave of Absence. If the leave is granted, the student is allowed to return to the College without a formal readmission application. Except in extraordinary circumstances, the maximum leave that may be granted is one year.

If a leave of absence is granted, all General Education requirements and major/minor requirements (if a major or minor has been declared) in effect at the time of the leave remain in effect when the student returns at the end of the leave. Students who return after a period exceeding that granted in the leave must apply for readmission through the student support services office.

Students requesting a Leave of Absence should take the following steps:

- 1) Requests for a Leave of Absence should be filed the semester prior to leaving.
- 2) Pick up a Leave of Absence form in the Office of the Registrar. This form must be completed and returned to the registrar's office within five working days.
- 3) Meet with the dean of students or coordinator of academic advising. Approval by either the dean or the coordinator is required.
- **4)** Once approval is granted, the student must have each of the following offices sign off on the form: a) Residence Life, b) Student Financial Services, c) Cashier and Credit, and d) Perkins Loan Office. (Since a Leave of Absence may affect financial aid, students should make sure they understand all implications of the leave for their financial aid package.)
- **5)** Turn in the completed form to the Office of the Registrar.
- **6)** Register for classes the semester prior to returning. The registrar's office will contact students on Leave of Absence prior to the on-campus registration period to confirm the students' intentions to return the next semester. Registration forms will be sent to each student, but students on Leave of Absence may choose to register on the Web at www.lclark.edu/dept/reg. Registration forms must reach the registrar's office by the date on which on-campus forms are due. Schedules are published on the Lewis & Clark Web site.

- 7) Before returning to Lewis & Clark College, students must provide an official transcript of all work taken at another college or university during the Leave of Absence.
- 8) Students who wish to return to Lewis & Clark College at a different time than indicated on the original agreement, but within the one-year maximum, must inform the registrar's office of this change at least one month prior to the originally scheduled date of reenrollment.

#### READMISSION

Students who want to return to the College after having left without taking an official Leave of Absence, or after being away from the College for more than a year, must apply for readmission. Information concerning readmission, including application materials and procedures, is available in the Office of Student Support Services or the Office of the Registrar. Readmitted students are subject to the College requirements in effect during the year of their readmission.

### WITHDRAWAL

Students who wish to permanently withdraw from Lewis & Clark College must pick up a Withdrawal form in the Office of the Registrar and must follow the procedures outlined above for a Leave of Absence, numbers 1 through 5.

## Majors and Minors<sup>10</sup>

### MAJORS

Lewis & Clark offers 26 majors. A student's major presents an opportunity to explore an area of interest in depth, to develop knowledge and skills for that particular field of inquiry, and to learn both the discipline and the satisfaction of pursuing a rigorous course of study.

Students with junior class standing or higher (61 or more completed credits) must have a declared major. Those who have not officially declared a major with the Office of the Registrar will not be allowed to register for courses in any subsequent semester.

The choice of a major does not imply the choice of career, but instead represents the base for a range of future opportunities. With careful advising and creative choice of electives, two students majoring in the same field may be preparing for quite different careers; similarly, students with nearly identical careers may have arrived there from very different majors. After graduation, some students proceed directly to graduate study or employment in the field in which they majored. Others apply the skills and knowledge gained from the major in less obvious but equally valid ways. For example, a philosophy major may choose a career in law, business education, medicine, or research; a biology major may go on in oceanography; a chemistry major may choose to work in industry or government; a history major may decide on publishing, public administration, or the broadcast media.

In today's economy people can expect to change careers several times. The skills of thinking and communicating and the aptitude for

<sup>10</sup> For a complete list of majors and minors offered by Lewis & Clark, see the College Profile in this catalog.

learning developed through a liberal arts education are more useful and adaptable than any narrowly defined vocational specialization.

A major normally constitutes approximately one-third of a student's academic program, but in no case may a student receive credit toward graduation for more than 60 semester credits in one academic department. Majors consist of a group of required and elective courses. At least 20 semester credits for the major must be taken at Lewis & Clark with a cumulative GPA of 2.000 or higher in the major. See academic department listings for major requirements. (See also Graduation Requirements.)

#### **DOUBLE MAJORS**

Students may graduate with a maximum of two majors, if they complete all requirements for each major. Where requirements for majors overlap, a student must complete at least 28 discrete semester credits in each major. In no case may students double major if they complete a student-designed major.

### STUDENT-DESIGNED MAJORS

A student may propose a major focusing on a body of knowledge that has a definable character and extends beyond the bounds of existing majors or departments. The course of study for a student-designed major must be planned and submitted for approval before the major may be officially declared.

Development of a student-designed major involves selection of and consultation with a three-member faculty advisory committee, and submission of a formal proposal to the Honors and Student-Designed Majors Committee. Students are urged to begin constructing a proposal during the sophomore year, because they must initiate it no later than the first semester of the junior year. Transfer students seeking to undertake a student-designed major must follow the same timeline.

A student-designed major must consist of courses from more than one department, and must include a balance between upper- and lower-division courses and a senior-year project that integrates work in the major. The senior project can take the form of a thesis, internship, creative project, or artistic performance.

Students wanting to pursue a student-designed major must take the following steps:

- 1) Discuss a plan with the chair of the Honors and Student-Designed Majors Committee and faculty members who might serve on a faculty advisory committee.
- 2) Submit a statement of intent to propose a student-designed major (forms available in the Office of the Dean of the College) no later than the third week of the semester in which the process is initiated. No proposal may be initiated later than the first semester of the junior year (defined as the fourth semester before the student's anticipated graduation date).
- 3) Submit (on forms provided by the Office of the Dean of the College) an application that includes the following: **a)** A clearly

written rationale for the major, describing the integration of the disciplinary elements in detail and the focus of the proposed course of study; **b**) A brief description of the anticipated senior project; **c**) A list of courses to be completed and the sequence of study that will compose the major; and **d**) The signatures of three faculty members who approve the proposal and agree to serve as the faculty advisory committee.

4) Submit a letter of support from one member of the faculty advisory committee attesting to the student's ability to pursue an independent course of study, as well as the faculty member's preparation and willingness to guide the student's program.

The completed proposal must be filed in the Office of the Dean of the College no later than the end of the sixth week of the semester. The proposal must be approved by the Honors and Student-Designed Majors Committee before the major can be officially declared. Approval of a student-designed major may be granted only if a student has achieved a GPA of 3.000 or higher for the previous 32 semester credits. Students undertaking a student-designed major may not double major. Students declaring a student-designed major must submit a prospectus of the senior project to the faculty advisory committee and to the Office of the Dean of the College in the semester prior to registering for the project.

**Honors** Students completing a student-designed major may receive honors upon graduation if they have a GPA of 3.500 and if the faculty advisory committee judges the senior project worthy of honors.

#### MINORS

At Lewis & Clark students are expected to devote roughly one-third of their studies to fulfilling major requirements and one-third to General Education requirements. This leaves one-third available for electives.

Some students choose to coordinate their choice of elective courses in order to complete requirements for a minor. A minor represents a clearly defined set of courses identifying a secondary area of expertise. The student may opt for a minor that complements the major or one that is seemingly unrelated to the major. Some overlap is permitted, with courses counting toward both the major and the minor, but a minimum of 12 semester credits must be discrete to the minor (i.e., may not be used in any other set of major or minor requirements). Students must also maintain a cumulative GPA of 2.000 or higher in minor courses.

Minors consist of a group of required and elective courses. At least 12 semester credits for the minor must be taken at Lewis & Clark. Minors are offered through a department, program, or curriculum; some are interdisciplinary. See departmental listings for minor requirements.

Students declare a minor on a form obtainable from the Office of the Registrar. Department chairs are responsible for verifying the completion of a student's minor on a Minor Verification Form, available in the Office of the Registrar. No more than two minors may be recorded on a student's transcript.

## Modification of Requirements

Students may petition to have an academic requirement waived or modified. Before submitting a petition, a student should meet with his or her adviser and/or the Office of the Registrar to consider ways of fulfilling the requirement without the need for modification. If that is not possible, the student may obtain a petition form from the Office of the Registrar. A faculty committee reviews the petition and approves or denies the request.

### Veterans

Lewis & Clark is required by law to report to the Veterans Administration any undergraduate veteran student who remains on academic probation for more than two semesters.

In addition, Lewis & Clark must inform the Veterans Administration if a veteran is suspended from the institution for academic dishonesty.

# Academic English Studies

## DIRECTOR: JOANN M. GEDDES

Lewis & Clark College instituted a program of English language study for nonnative speakers of English in 1972. This program, formerly known as the Institute for the Study of American Language and Culture (ISALC), has transitioned into the Academic English Studies (AES) program. AES offers students the opportunity to enroll in advanced English language courses for credit while enrolled in a degree program or a term of overseas study.

## PROGRAM OF STUDY

AES is dedicated to fostering a diverse community of highly qualified learners within the undergraduate college. The program mission is to provide advanced instruction in English as a foreign language for non-native speakers. Sociocultural objectives are reflected in classroom practices designed to assist students in developing cross-cultural awareness and in improving multicultural relations. Students learn how to communicate fluently and effectively in an academic setting. Through content-based language courses, they are exposed to major assumptions, knowledge, and approaches encountered within a liberal arts institution. Courses emphasize meaning and process, while providing the framework for language instruction. Students read a wide variety of unadapted texts and sources, recognize and develop different writing styles and rhetorical patterns, engage in in-depth research, and develop complex analytical and critical problem-solving skills in English.

#### ADMISSION

AES offers English courses for up to 24 elective credits toward a Bachelor of Arts degree to all non-native speakers of English who are admitted to Lewis & Clark and who submit a TOEFL score of 500-575 (paper-based) or 173-232 (computer-based) or the equivalent. Enrollment will be based on an English language placement test administered by AES. Courses are offered during fall, spring, and summer semesters. For more information on the admission process, see International Student Admission in this catalog.

#### FACULTY

Deborah Anholt, instructor. Joann M. Geddes, director, instructor. Michael Krauss, instructor. Norman Yoshida, instructor.

#### 110 High Intermediate Reading for Non-Native Speakers

Anholt, Geddes, Krauss, Yoshida

Content: English language study with a focus on reading strategies, vocabularybuilding skills, and critical thinking through intensive and some extensive reading. Analysis of grammatical and rhetorical patterns encountered in adapted and unadapted texts.

Prerequisite: Placement exam. Taught: Annually, 4 semester credits.

## 120 High Intermediate Writing for Non-Native Speakers

Anholt, Geddes, Krauss, Yoshida

Content: English language study with a focus on paragraph and essay structure, developing grammatical competence and idiomatic usage, and appropriate writing and formatting conventions. Introduction to library research skills, including databases, reference materials, and the Internet; documentation and issues of academic integrity. Formal research paper and oral presentation

required.

Prerequisite: Placement exam.

Taught: Annually, 4 semester credits.

#### 130 High Intermediate Communication Skills for Non-Native SPEAKERS

Anholt, Geddes, Krauss, Yoshida

Content: English language study with a focus on development of academic note-taking and listening skills, vocabulary, and extensive oral work.

Structured undergraduate academic class observations. Community contact

through service-learning projects required.

Prerequisite: Placement exam.

Taught: Annually, 4 semester credits.

## 150, 151 HIGH INTERMEDIATE CONTENT-BASED TOPICS FOR NON-NATIVE SPEAKERS

Anholt, Geddes, Krauss, Yoshida

Content: English language instruction topics, which vary from semester to semester; topics include computer applications, environmental issues, U.S. culture, current events, and so on. Duration: half of a semester. Students take two modular courses each term.

Prerequisite: Placement exam.

Taught: Annually, each half-semester, 2 semester credits.

#### 210 ADVANCED READING FOR NON-NATIVE SPEAKERS

Anholt, Geddes, Krauss, Yoshida

Content: English language study based on unadapted readings of cultural and academic interest, fiction, and nonfiction. Focus on reading strategies, critical reading and thinking skills, as well as vocabulary acquisition skills and increased reading speed.

Prerequisite: Completion of Academic English Studies 110 or placement exam. Taught: Each semester, 4 semester credits.

## 220 Advanced Writing for Non-Native Speakers

Anholt, Geddes, Krauss, Yoshida

Content: English language study with extensive practice in academic writing: developing a wide variety of sentence types and rhetorical patterns; appropriate writing and formatting conventions; and a comprehensive review of grammar, punctuation, mechanics, and spelling.

Prerequisite: Completion of Academic English Studies 120 or placement exam. Taught: Annually, 4 semester credits.

## 230 ADVANCED SPEECH COMMUNICATION FOR NON-NATIVE SPEAKERS Anholt, Geddes, Krauss, Yoshida

Content: Advanced English language study with a focus on the development of small-group and public speaking skills. Introduction of practical speech communication principles, rhetorical styles, and critical listening requirements for successful interaction in the classroom.

Prerequisite: Completion of Academic English Studies 130 or placement exam. Taught: Annually, 4 semester credits.

## 240 SEMINAR FOR NON-NATIVE SPEAKERS

Anholt, Geddes, Krauss, Yoshida

Content: Advanced English language study with a focus on a specific academic subject. Seminar format drawing upon all language skills through lectures, small-group discussions, presentations, projects, and research, culminating in a formal paper and oral presentation.

Prerequisite: Completion of Academic English Studies 130 or placement exam. Taught: Each semester, 4 semester credits.

## 250, 251 ADVANCED CONTENT-BASED TOPICS FOR NON-NATIVE **SPEAKERS**

Anholt, Geddes, Krauss, Yoshida

Content: English instruction on an academic topic, which varies from semester to semester; topics include media, information technology, controversial issues, linguistics, and literature. Development of analytical, critical thinking, and problem-solving skills. Duration: half of a semester. Students take two modular courses each term.

Prerequisite: Completion of Academic English Studies 150 and 151 or placement exam.

Taught: Each half-semester, 2 semester credits.

## 260 Introduction to Modes of Inquiry

Anholt, Geddes, Krauss, Yoshida

Content: Requires full participation in undergraduate class. Focus on notetaking, aural comprehension, and application of language skills required to succeed in an academic setting. Weekly meetings with audit supervisor to synthesize course content.

Prerequisite: Consent of instructor.

Taught: Each semester, 4 semester credits.

## Art

#### CHAIR: PHYLLIS YES

The Department of Art offers a curriculum that is equally appropriate for those who plan serious careers in art and for those who want to expand their knowledge of the visual world. The department encompasses art history and six areas of studio work.

An art major acquires the background required to attend graduate school or to become a professional artist. Students also may acquire substantial experience in many artistic endeavors in preparation for a life of critical appreciation of art or for careers in business and civic endeavors such as gallery, museum, and public arts administration.

#### THE MAJOR PROGRAM

The department offers two concentrations: art studio and art history. Students majoring in art must choose either a medium (studio) or a historical period (history) in which to specialize. Because the introductory-level course in each studio medium and art historical area is fundamental to more advanced work in the department, students must take the 100-level courses first. They then select an area of particular interest. Studio areas are: ceramics, drawing, graphic design, painting, photography, sculpture. Art history areas are: Renaissance art, baroque art, modern art; and historical studies of Chinese art, Japanese art, and American art.

After completing formal instruction in a field of interest, students begin independent studies in their specialization. Because of planning involved in the junior and senior years of the major, students must declare the major by the first semester of the junior year and select a faculty adviser whose interests and training most closely match their own. Before beginning work on the required senior project, majors must have completed two semesters of studio work in the medium, or study in the historical period, in which they plan to do their project. Students concentrating in art history also must have completed History 300.

All majors, studio and art history, must be on campus for their senior year. The department urges majors to take related courses in literature, philosophy, history, and religious studies.

The art curriculum is organized into two concentrations as listed below.

Art Studio	Art History
113 Sculpture I	101, 111 History of Western Art
213 Sculpture II	152, 153 History of East Asian Art
313 Sculpture III	201 Modern European Art
115 Drawing I	250 The Meeting of Eastern and Western Art
215 Drawing II	254 History of Buddhist Art
315 Drawing III	304 History of American Art
116 Ceramics I	305 Early Renaissance Art and Architecture
216 Ceramics II	309 Art of New York
316 Ceramics III	310 Baroque Art and Architecture
117 Painting I	352 Cities and the Arts in China
217 Painting II	401 Contemporary American Avant-Garde
317 Painting III	451 Special Studies in Asian Art
118 Graphic Design I	491 Senior Project: Art History Concentration
218 Graphic Design II	497 Independent Research
318 Graphic Design III	
328 Illustration	
120 Photography I	
220 Photography II	

- 221 Alternative Photographic Processes
- 320 Photography III 321 Advanced Alternative Photographic Processes
- 411A and 411B Senior Seminar
- 490A and 490B Senior Project: Studio Concentration
- 499 Independent Study

## MAJOR REQUIREMENTS: CONCENTRATION IN ART STUDIO

A minimum of 44 semester credits, distributed as follows:

- 1) Three courses, 12 semester credits, in art history: one from Art 101 or 111, one from 152 or 153, and at least one from Art 201, 250, 254, 304, 305, 309, 310, 352, 401, 451.
- 2) One course in painting: Art 117.
- 3) One course in drawing: Art 115.
- **4)** One course in sculpture or ceramics: Art 113 or 116.
- **5)** Art 411A and 411B.
- **6)** Four elective courses in art including Art 490A and 490B.

## MAJOR REQUIREMENTS: CONCENTRATION IN ART HISTORY

A minimum of 44 semester credits, distributed as follows:

- 1) One course in drawing: Art 115.
- 2) One course in sculpture or ceramics: Art 113 or 116.
- **3)** One studio course chosen from Art 213, 215, 216, 217.
- **4)** Art 101, 111, 152, 153.
- **5)** Art 491 or 497.
- **6)** Three elective courses in art history, at least two of which must be at the 300 or 400 level.

## MINOR REQUIREMENTS

A minimum of 24 semester credits (six courses), distributed as follows:

1) Two courses, 8 semester credits, in art history: one from Art 101 or 111,

one from 152 or 153.

- 2) One course in drawing: Art 115.
- **3)** One course in sculpture or ceramics: Art 113 or 116.
- **4)** Two elective courses in art studio or art history.

#### PRACTICUM PROGRAM

Qualified students may select from a variety of practica, normally undertaken for one semester.

## HONORS PROGRAM

Criteria for admission into the honors program are:

- 1) Senior standing.
- 2) GPA of 3.500 overall in the major.
- **3)** Approval of student's proposal for the senior project/thesis (Art 490A and 490B or 491) *and* an oral review of the senior project with the department faculty during the fall semester of the senior year (490A and 490B).
- **4)** Nomination by faculty and department.

Students must submit a proposal for the senior project/thesis to their adviser no later than the second week of the fall semester of the senior year. The adviser will consider the proposal and accept it, reject it, or ask for revisions. The senior project/thesis should be designed in consultation with the student's adviser. In general, these consultations consist of discussions about the scope, nature, and requirements of the senior project/thesis.

Honors are awarded at graduation after completion of the Senior Art Exhibition (for studio art) and the research project and oral presentation (for art history) to those students whose final projects are judged by the department faculty to be of superior quality.

## RESOURCES FOR NONMAJORS

Most art courses are available to nonmajors. Students without previous exposure to art history or studio art should begin with any of the 100-level art history or studio courses. These introductory courses may be taken in any sequence. Students who wish to take courses above the 100 level without the introductory-level course in that medium or subject area must obtain the instructor's consent.

#### **FACILITIES**

The Fred W. Fields Center for the Visual Arts houses student gallery space, painting and drawing studios, graphic design area, photography lab, ceramics and sculpture studios, a large classroom, and conference rooms. Studio and art history classes frequently visit exhibits at local art galleries and use the facilities and collections of the Portland Art Museum. Students also make use of the Ronna and Eric Hoffman Gallery of Contemporary Art across the Alumni Circle from the Fields Center. The year-end show of senior projects is held there each spring.

#### FACULTY

Debra Beers, lecturer. Drawing.

Stewart Buettner, professor. Renaissance, baroque, American, 20th-century art history.

Lisa Claypool, assistant professor. East Asian art history.

Robert Miller, senior lecturer. Photography.

Theodore W. Vogel, senior lecturer. Ceramic sculpture.

Bruce West, senior lecturer. Wood, metal, stone sculpture.

Phyllis Yes, professor. Painting.

## 101, 111 History of Western Art

Buettner, Coco

Content: Developments in Western architecture, painting, and sculpture in

historical and cultural perspective. The process of analyzing a work of art. Fall: Paleolithic, Greek, Roman, and medieval art. Spring: Renaissance to 19th century.

Prerequisite: None.

Taught: Annually, 4 semester credits each.

#### 113 SCULPTURE I

West

Content: Three-dimensional form explored through a variety of media and techniques—wood, stone, plaster, metal, assemblage. Short exercises to suggest the possibilities and complexities of three-dimensional form, followed by more complex techniques and materials.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 115 Drawing I

Bartholomew, Beers

Content: Different materials and works explored through line, contour, value, and gestural and compositional drawings. Working from a variety of subject matter, students develop hand-eye coordination, the ability to compose drawings, and the ability to see.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 116 CERAMICS I

Vogel

Content: Ideas and basic techniques exploring clay as an art material: pinch, coil, slab, modular construction, and wheel throwing, with focus on nonfunctional art. Introduction to glaze techniques, kiln loading, firing, and basic concepts of three-dimensional design. The aesthetics of form, visual thinking, the history of ceramics.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 117 PAINTING I

Yes

Content: Physical and intellectual problems in painting. Stretching and preparing canvas; basic techniques of acrylic painting: direct, glazing, scumbling, blending. Other contemporary techniques and art ideas; developing critical awareness of the inherent problems of painting.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 118 GRAPHIC DESIGN I

Watkins

Content: Introduction to the basic elements of visual communication through studio projects designed to develop perceptual, conceptual, and technical skills. Fundamental design principles emphasize visual form, composition, and the fundamentals of typography. Analytical skills reinforced through several critique models: individual, group, oral, and written. Students work by hand and on the computer.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 120 Photography I

Miller

Content: Photographic equipment, materials, processes, philosophy.

Experimenting with paper and film, small camera operation, roll-film processing, enlarging, finishing, mounting.

Prerequisite: None. Students must have a 35mm camera.

Taught: Annually, 4 semester credits.

## 152, 153 HISTORY OF EAST ASIAN ART

Claypool

Content: Painting, sculpture, and architecture of China and Japan from the Neolithic period to the present day. Fall: Chinese art and architecture.

Spring: Japanese art and architecture.

Prerequisite: None.

Taught: Annually, 4 semester credits each.

## 201 MODERN EUROPEAN ART

Content: Developments in the European tradition, 1860–1940, that culminate in experiments in abstraction in Europe at the beginning of the 20th century. Realism, impressionism, postimpressionism, expressionism, fauvism, cubism, dada, surrealism.

Prerequisite: None. Art 111 recommended. Taught: Alternate years, 4 semester credits.

#### 213 SCULPTURE II

West

Content: Advanced assignments in specific materials. Limited number of projects of advanced philosophic and technical proficiency.

Prerequisite: Art 113.

Taught: Annually, 4 semester credits.

#### 215 DRAWING II

Beers

Content: Development of drawing skills to communicate complex structural and spatial problems. Gaining control over the major facets of objective drawings through experimenting with diverse drawing materials and subjects and concepts related to the human figure.

Prerequisite: Art 115.

Taught: Annually, 4 semester credits.

## 216 CERAMICS II

Vogel

Content: Intermediate study of clay and its properties as an art material. Students may pursue handbuilding, wheel throwing, glazing techniques, and kiln firing, with focus on nonfunctional art. Emphasis on design, form, and visual thinking.

Prerequisite: Art 116.

Taught: Annually, 4 semester credits.

## 217 PAINTING II

Yes

Content: Painting problems of advanced technical and intellectual difficulty. Emphasis on generating and exploring ideas.

Prerequisite: Art 117.

Taught: Annually, 4 semester credits.

## 218 GRAPHIC DESIGN II

Watkins

Content: Intermediate design methods with emphasis on the integration of

form and content through specific design problems, contextual research, and critical analysis. Formal studies address more complex issues of visual communication with regard to form and typography including visual hierarchy and legibility. Overview of historial and contemporary examples of graphic design.

Prerequisite: Art 118 or consent of instructor.

Taught: Annually, 4 semester credits.

## 220 Photography II

Miller

Content: Emphasis on the relationship between exposure, film development, and finished print. Exploration of other film formats, scale, and refinement of the print to develop a consistent portfolio of finished work. Introduction to color and digital photography.

Prerequisite: Art 120 or consent of instructor.

Taught: Annually, 4 semester credits.

## 221 ALTERNATIVE PHOTOGRAPHIC PROCESSES

Rupert

Content: Introducing the intermediate student to nonsilver photographic processes, with emphasis on combining a variety of media to form one-of-a-kind photo-based images. Historical and contemporary trends.

Prerequisite: Art 120 or consent of instructor.

Taught: Annually, 4 semester credits. May be taken twice for credit.

## 250 THE MEETING OF EASTERN AND WESTERN ART

Claypool

Content: Historical background and major conceptual issues distinguishing Eastern from Western art. Interactions between these two areas of the world.

Prerequisite: None. One 100-level art history course recommended.

Taught: Alternate years, 4 semester credits.

#### 254 HISTORY OF BUDDHIST ART

Claypool

Content: The artistic tradition engendered by the Buddhist faith as it developed in India, China, and Japan. Visual documentation through architecture, sculpture, and painting of changes in Buddhist doctrines. *Prerequisite*: None. Course in art history or Asian studies recommended. *Taught*: Alternate years, 4 semester credits.

## 304 HISTORY OF AMERICAN ART

Buettner

Content: American art and architecture from the colonial period until the Great Depression. Cultural traits revealed through various art forms.

Prerequisite: Art 111 or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 305 EARLY RENAISSANCE ART AND ARCHITECTURE

Buettner

Content: Historical and cultural developments that influenced early Italian art and architecture. The 13th century through 1500, concentrating on Florence and Siena.

Prerequisite: Art 101 or 111 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 309 ART OF NEW YORK

Ballantyne (Visual Resources Curator)

Content: Primarily art done by the New York school since 1945, including abstract expressionism, pop, minimal, conceptual, pattern art, and more

contemporary developments. Possible consideration of earlier movements important in the development of contemporary New York art. Art majors may participate in the New York program only during their sophomore or junior year, because they must be on campus during the senior year.

Prerequisite: Art 111 or 201 or consent of instructor.

Taught: Annually, on New York program, 4 semester credits.

#### 310 BAROQUE ART AND ARCHITECTURE

Buettner

Content: Art and architecture of Italy, Spain, Belgium, Holland, and France in the 17th century, concentrating on Caravaggio, Gentileschi, Bernini,

Borromini, Velasquez, Rembrandt, Leyster, Rubens.

Prerequisite: Art 101 or 111 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 313 SCULPTURE III

West

Content: One or two projects designed by the student in consultation with the instructor. In-depth exploration into advanced technical and aesthetic problems of students' own interests.

Prerequisite: Art 213.

Taught: Annually, 4 semester credits. May be taken twice for credit.

#### 315 Drawing III

Beers, Staff

Content: Advanced drawing techniques and concepts. Studio course emphasizing experimental tools and composition.

Prerequisite: Art 215.

Taught: Annually, 4 semester credits. May be taken twice for credit.

#### 316 CERAMICS III

Vogel

Content: Advanced aesthetic, technical, and conceptual problems in clay.

Prerequisite: Art 216.

Taught: Annually, 4 semester credits. May be taken twice for credit.

## 317 Painting III

Yes

Content: Advanced painting problems.

Prerequisite: Art 217.

Taught: Annually, 4 semester credits. May be taken twice for credit.

## 318 Graphic Design III

Watkins

Content: Advanced projects in visual communication. Formal studies address design process, verbal and visual articulation of ideas and information, visual narrative and sequence, and experimental structures and formats. Discussions and readings cover the many contexts in which graphic design operates: cultural, aesthetic, commercial, and political—from the creation of fine art, to the organization of information, to the communication of ideas.

Prerequisite: Art 218 or consent of instructor.

Taught: Annually, 4 semester credits. May be taken twice for credit.

#### 320 PHOTOGRAPHY III

Miller

Content: The interrelation of subject matter, concept, and technique.

Experimentation with aesthetic and technical considerations including camera

formats, scale, sequence, color or alternative processes, portfolio presentation. Prerequisite: Art 220.

Taught: Annually, 4 semester credits. May be taken twice for credit.

#### 321 ADVANCED ALTERNATIVE PHOTOGRAPHIC PROCESSES

Rupert

Content: Introducing the advanced student to nonsilver photographic processes, with emphasis on combining a variety of media to form one-of-akind photo-based images. Historical and contemporary trends.

Prerequisite: Art 221.

Taught: Annually, 4 semester credits. May be taken twice for credit.

#### 328 ILLUSTRATION

Staff

Content: Techniques for solving creative problems in graphic design: airbrush, watercolor, pen and ink, scratchboard, computer-aided design systems.

Prerequisite: Art 115 or 118.

Taught: Alternate years, 4 semester credits.

#### 352 CITIES AND THE ARTS IN CHINA

Claypool

Content: The study of painting produced in urban centers in China from the 11th through the 19th centuries. Emphasis on the relationship of court academic painting and literati painting to city life; the representation of places of power, learning, or recreation; and the role of painting in the construction of urban identities.

Prerequisite: Art 152.

Taught: Alternate years, 4 semester credits.

## 356 THE ART OF THE PRINT IN EARLY MODERN EAST ASIA

Claypool

Content: The study of prints as objects of everyday use in early modern Japan and China, with an emphasis on how printed pictures circulated and inculcated norms and normative practices in urban milieux.

Prerequisite: Art 152 or 153.

Taught: Alternate years, 4 semester credits.

#### 401 CONTEMPORARY AMERICAN AVANT-GARDE

Content: Art, theory, and criticism in America since World War II, including the New York school, abstract expressionism, more recent developments.

Primarily visual arts but also aspects of music, video, film, performance.

Prerequisite: Art 111 or 201.

Taught: Alternate years, 4 semester credits.

## 411A SENIOR SEMINAR

Tesner (Hoffman Gallery of Contemporary Art)

Content: Foundation work for the creative artist: idea selection, the artist's statement, and the creation of artwork for museums and galleries.

Prerequisite: Art majors with senior standing, at least two courses in the student's chosen medium. Students must spend both semesters of their senior vear on campus.

Taught: Annually, during fall semester only, 2 semester credits.

#### 411B SENIOR SEMINAR

Tesner (Hoffman Gallery of Contemporary Art)

Content: Continuation of 411A. Discussion of the theoretical and historical background of the contemporary artist, the artist's process for selecting and

photographing his or her work, and an examination of practices in the art world. Course culminates in the preparation of gallery space for Senior Art Exhibition.

Prerequisite: Art majors with senior standing, at least two courses in the student's chosen medium. Students must spend both semesters of their senior year on campus.

Taught: Annually, during spring semester only, 2 semester credits.

## 451 SPECIAL STUDIES IN ASIAN ART

Claypool

Content: In-depth study of topics in Asian art such as East Asian ceramics, 17th-century Chinese painting, modern Chinese painting.

Prerequisite: One 100- or 200-level Asian art history course or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 490A SENIOR PROJECT: STUDIO CONCENTRATION

Staff

Content: Independent project in student's area of specialization, culminating in an in-depth series of artwork.

Prerequisite: Art majors with senior standing who have completed at least two courses in their area of specialization, and consent of adviser. Students must spend both semesters of their senior year on campus. Students should contact their advisers in the spring of their junior year to discuss their senior projects. Taught: Annually, during fall semester only, 2 semester credits.

## 490B SENIOR PROJECT: STUDIO CONCENTRATION

Staff

Content: Independent project in student's area of specialization, culminating in an in-depth series of artwork.

Prerequisite: Art 490A. Students must spend both semesters of their senior year on campus.

Taught: Annually, during spring semester only, 2 semester credits.

## 491 SENIOR PROJECT: ART HISTORY CONCENTRATION

Buettner, Claypool

Content: Self-directed independent project in the student's area of interest. Prerequisite: Admission to department honors program, at least two courses in the art historical period, nomination by instructor, History 300. Students must spend both semesters of their senior year on campus.

Taught: Annually, 2 semester credits each of the two semesters immediately prior to graduation. Project progress gauged by faculty at end of fall semester; project presented in classroom format.

#### 497 INDEPENDENT RESEARCH

Buettner, Claypool

Content: Selection and refining of topic of significance in art history, discussion and selection of appropriate research methodology, research techniques, public presentation of research results.

Prerequisite: History 300. Art majors with senior standing, at least two courses in student's area of specialization, consent of adviser. Students must spend both semesters of their senior year on campus.

Taught: Annually, 2 semester credits each of the two semesters immediately prior to graduation.

#### 499 INDEPENDENT STUDY

Content: Independent projects designed in consultation with department faculty.

*Prerequisite:* The 300-level course in the medium or art historical period. Taught: Annually, 2-4 semester credits.

# **Biochemistry**

#### CHAIR: DEBORAH E. LYCAN

The molecular logic of living organisms is the focus of biochemistry. Biochemists and molecular biologists study how the collection of molecules within the cell interact to maintain and perpetuate life. The biochemistry major at Lewis & Clark provides students with an opportunity to pursue an interdisciplinary course of study that follows the guidelines of the American Society for Biochemistry and Molecular Biology. Students majoring in biochemistry devote their first years of study to mastering the basic tenets of calculus, physics, and chemistry. During this period, the principles of cellular and molecular biology and genetics are also systematically introduced in biology courses. Upper-division coursework exposes students to current research in biochemistry and cell and molecular biology.

The distinctive character of our major program in biochemistry derives from the curricular goals that shape our program. Faculty associated with the biochemistry major are proponents of a lab-rich, investigative education for undergraduates in the sciences. Opportunities for scientific inquiry are woven into the laboratory curriculum and prepare the student ultimately to undertake collaborative research projects with the faculty. To foster the ability of our students to engage independently in the scientific process, we devote class time to critically reading the primary literature. In our laboratory courses, students participate in selecting and designing their experiments. The curriculum is constructed to engage students in the scientific process and thereby facilitate the development of reflective judgment and problemsolving skills.

Students majoring in biochemistry are guided by sponsoring faculty from both the biology and chemistry departments. The major prepares students for careers in biomedical research, biotechnology, and genetic engineering. It is especially suitable for students seeking admission to medical or dental schools, or to graduate programs in biochemistry, cell or molecular biology, or genetics. Students majoring in biochemistry may not minor in biology or chemistry.

#### MAJOR REQUIREMENTS

A minimum of 47 semester credits in biology and chemistry (9 semester credits of which are granted for associated laboratory work), plus courses in mathematics and physics, distributed as follows:

- 1) Biology 151, 311, 312, and a minimum of 4 semester credits selected from Biology 200, 320, 361, 412, 422, 462.
- **2)** Chemistry 110 and 120, or 115 and 135.
- **3)** Chemistry 210, 220, 310, 330, 335, 336.
- 4) Mathematics 131 and 132.
- **5)** Physics 141 and 142.
- **6)** Honors students must complete Biochemistry 410.

Note: Students planning to attend graduate school in biochemistry/molecular biology are strongly advised to take Biology 361 and either Biology 412, 422, or 462.

## **Honors**

Biochemistry majors who have distinguished themselves academically (GPA of 3.500 or higher in the major and overall), have completed either Biology 312 or Chemistry 336, and have some prior research experience are invited in the

spring of their junior year to participate in the senior thesis program. If they accept the invitation, students work with a faculty adviser to develop a research project, which must be approved by faculty overseeing the biochemistry major. Students carry out the experimental work in their senior year, then prepare a written thesis and orally defend the thesis during spring semester. Those whose thesis is deemed meritorious receive honors in biochemistry on graduation.

## SPONSORING FACULTY

Greg J. Hermann, assistant professor of biology.

Louis Y. Kuo, professor of chemistry.

Janis E. Lochner, Dr. Robert B. Pamplin Jr. Professor of Science.

Deborah E. Lycan, associate professor of biology.

C. Gary Reiness, professor of biology.

## 410 BIOCHEMISTRY/MOLECULAR BIOLOGY SEMINAR

Staff

Content: Select topics in biochemistry and molecular biology. Students attend seminars of invited outside researchers and prepare an oral seminar on their own research or on a critical analysis of a relevant research publication.

Prerequisite: Chemistry 330, 335. Biology 311.

Taught: Annually, 1 semester credit.

## 496 BIOCHEMISTRY SENIOR RESEARCH

Staff

Content: In-depth laboratory inquiry into a question relevant to biochemistry/ molecular biology. Students develop a thesis proposal in association with a faculty mentor, conduct extensive experimental work to address their hypothesis, and present their analysis of their findings in a written thesis. *Prerequisite:* By invitation only.

Taught: Annually, 4 semester credits each semester of the senior year.

## 499 INDEPENDENT STUDY

Staff

Content: Participation in a faculty-supervised research project at Lewis & Clark or another research institution. Further information available from biochemistry program faculty members.

Prerequisite: Approval of project proposal by program and supervising faculty member.

Taught: Each semester, 2-4 semester credits.

# **Biology**

## CHAIR: PAULETTE F. BIERZYCHUDEK

From molecules to ecosystems, biologists examine life on our planet from many different perspectives. At Lewis & Clark, students explore the many facets of biological science through a diverse and innovative curriculum that encourages original thinking and provides hands-on experience at all levels of biological inquiry. From their first course, biology majors are immersed in the process of discovery, developing the skills of logical problem-solving and rigorous methodology that characterize modern scientific investigation. Students are not only introduced to facts, but to the theoretical underpinnings that define a particular topic and its relevance in today's world. Thus, graduates leave the program prepared for a variety of careers. Some pursue graduate studies and go on to become researchers, teachers, or health professionals. Others enter careers in law, journalism, education, or business. The concern of many majors for the health of our planet leads them to environmental careers in academia

or with governmental agencies, businesses, or private foundations.

The faculty in the Department of Biology believe strongly in the value of learning through experience, and most courses include laboratory sections that demonstrate biological principles and allow students to develop their own investigations.

Students are encouraged to spend at least one summer gaining research experience, either by working with a Lewis & Clark faculty member or through one of the many available research internship programs at laboratories and field stations throughout the country.

#### THE MAIOR PROGRAM

The biology curriculum at Lewis & Clark is built around a core of three investigative courses, each of which offers an opportunity for students to learn in depth about one important way in which biologists study living organisms. These three courses focus on ecology and environmental science, genetics and evolutionary biology, and cellular and molecular biology. By delving in depth into particular subdisciplines of biology, students can pose and answer questions about living systems—begin to function as biologists—very early in their college careers. In addition to the core courses in biology, majors are expected to complete at least a year's study of chemistry and a college-level course in calculus or computer science because biology draws on the techniques and knowledge from these other scientific disciplines. Students complete the major by choosing, with the help of their faculty advisers, the upper-division courses in biology that best serve their personal interests.

## MAJOR REQUIREMENTS

A minimum of 43 semester credits in biology, plus courses in chemistry and mathematics, distributed as follows:

- 1) Biology 141, 151, 200.
- 2) Six additional courses, at least four of which must have a laboratory component, at least four of which must be at the 300 or 400 level, and at least four of which must be taken at Lewis & Clark. Chemistry 330 or 335 and 336 may be substituted for biology courses toward meeting this requirement.
- **3)** Chemistry 110 and 120, or 115 and 135.
- **4)** Mathematics 131 or Computer Science 171.

*Note:* Students planning to attend medical school, dental school, or graduate school in most areas of biology must take a full year of mathematics, of physics, and of organic chemistry.

#### SPECIAL PROGRAMS

Biology majors may earn up to 4 semester credits toward their major by participating in research programs with biology faculty at Lewis & Clark or with research professionals at other local institutions. These opportunities are available to students who have a strong academic record. Two semester credits may be earned as a practicum (Biology 244) if the student works under the continual guidance of a faculty member; up to 4 hours per semester may be earned for independent study (Biology 499) if the student has sufficient familiarity with research to work fairly independently on the design, execution, and interpretation of experiments; and if the student formally presents the results, either in writing or orally.

For students with interests linking biology with other disciplines, two programs are available. The biology and chemistry departments jointly offer an interdisciplinary major in biochemistry. The environmental studies program offers a major in this interdisciplinary field. Both programs are described in this catalog.

#### HONORS

Biology majors who have distinguished themselves academically (GPA of 3.500 or higher in the major and overall) are eligible to participate in the honors program. In the spring of their junior year, students work with a faculty adviser to develop a research project, which must be approved by the department. Students carry out the experimental work in their senior year, preparing a written thesis and an oral presentation for the faculty during spring semester. Students who maintain a GPA of 3.500 or higher and who complete the program successfully in the judgment of the department faculty receive honors in biology on graduation.

## RESOURCES FOR NONMAJORS

Students majoring in other subjects may enroll in Biology 100, which has no prerequisites. This course is designed to meet the General Education requirement for a laboratory science. Nonmajors may also take other biology courses for which they have met the appropriate prerequisites, but priority for enrollment in these courses is given to prospective biology, environmental studies, or biochemistry majors and pre-health professions students.

#### **FACILITIES**

Biology department resources include a fully equipped scanning electron microscope, a modern greenhouse, plant growth chambers, and an animal physiology laboratory. Molecular biology laboratories are equipped for gene cloning, polymerase chain reaction, tissue culture, and DNA sequencing. Natural areas near campus such as Tryon Creek State Park offer convenient sites for field studies.

#### FACULTY AND STAFF

Kellar Autumn, associate professor. Physiology, biomechanics, and evolution of animal locomotion.

Paulette F. Bierzychudek, William Swindells Sr. Professor of Natural Sciences. Evolution, ecology, and conservation biology, especially of plants.

Greta J. Binford, assistant professor. Invertebrate zoology, evolution of spider

Kenneth E. Clifton, assistant professor. Animal behavior, marine biology, ecology of coral reefs.

Edwin R. Florance, professor emeritus. Botany, plant physiology, microbiology, and cell ultrastructure.

Greg J. Hermann, assistant professor. Developmental genetics and cell biology. Deborah E. Lycan, associate professor. Molecular biology, developmental biology, and regulation of gene expression in eukaryotic cells.

Wendy McLennan, instructor and laboratory coordinator.

C. Gary Reiness, professor. Cell biology, neurobiology, development of the vertebrate nervous system.

Steven R. Seavey, professor. Botany, plant reproductive biology, evolution.

#### 100 Perspectives in Biology

Staff

Content: For nonmajors. Selected current topics in biology used to illustrate the strengths and limitations of the process of science and the approaches biologists use to learn about living organisms. Emphasis changes from semester to semester, reflecting the expertise and interests of the faculty member

teaching the course. For further information consult the appropriate faculty member before registration. Lecture and laboratory.

Prerequisite: None.

Taught: Each semester, 4 semester credits.

#### 115 EXPLORATIONS IN REGIONAL BIOLOGY

Staff

Content: For nonmajors. Offered in association with selected overseas programs. Selected biological principles using biomes and species native to the geographical location of the program. Emphasis on ecology and behavior of living organisms. Classroom and considerable field experience. Specific content varies from program to program; details available from Office of Overseas and Off-Campus Programs.

Prerequisite: None.

Taught: On Australia and Kenya study programs, 4 semester credits.

## 141 Investigations in Ecology and Environmental Science

Bierzychudek, Binford, Clifton

Content: An introduction to principles underlying the distribution and abundance of plants and animals. Examination of how these principles can inform understanding of current environmental problems like overpopulation, global warming, pollution, species extinction. Introduction to the methods of scientific investigation through laboratory and field studies that describe ecological phenomena and test hypotheses. Lecture and laboratory. *Note:* This course is part of the biology department's core curriculum and is intended for biology majors, potential biology majors, and environmental studies majors. The curriculum is challenging and requires a significant time commitment. Therefore, nonmajors are encouraged to fulfill their general education requirements by enrolling in one of the perspectives courses in the natural sciences.

Prerequisite: Mathematics 055. Taught: Annually, 5 semester credits.

# 151 Investigations in Genetics and Evolutionary Biology

Autumn, Reiness, Seavey

Content: For majors. Introduction to the fundamental principles of Mendelian genetics, population genetics, and evolution. Inheritance patterns of eukaryotes and prokaryotes, genetic basis of diseases, sources and consequences of mutations, variability and the genetic basis of evolutionary change. Further opportunities to engage in scientific investigation. Lecture and laboratory. Prerequisite: Mathematics 055.

Taught: Annually, 5 semester credits.

## 200 Investigations in Cell and Molecular Biology

Hermann, Lycan

Content: Introduction to the biochemistry and molecular biology of cells. Structure and function of proteins, nucleic acids, lipids, and carbohydrates. Introduction to glucolysis, oxidative phosphorylation, and photosynthesis in the context of the cell structures in which these processes occur. Project-based laboratories on enzyme kinetics, molecular cloning, and cell structure introduce students to experimental design and data analysis in these areas. Prerequisite: Biology 151 (may be taken concurrently). Chemistry 110 or 115. Taught: Annually, 5 semester credits.

## 210 GENERAL BOTANY

Seavey

Content: Survey of the diversity of the plant kingdom, including algae, fungi, cryptogams, seed plants. Introduction to the structure, development, physiology, life histories of plants. Examples of current botanical research. Lecture and laboratory.

Prerequisite: Biology 151 or 200.

Taught: Alternate years, 5 semester credits.

#### 211 LAND VERTEBRATES

Clifton

Content: Studies of terrestrial vertebrate diversity. Ecological and evolutionary processes that promote and maintain patterns of form, function, and behavior of birds, mammals, reptiles, and amphibians. Lecture, discussion, laboratory; field trips to explore local patterns of diversity in natural settings.

Prerequisite: Biology 141, 151.

Taught: Alternate years, 5 semester credits.

## 212 Invertebrate Zoology

Binford

Content: Survey of the diversity of invertebrates, with emphasis on the arthropods. Introduction to their structure, development, behavior, natural history, and evolutionary relationships. Lecture, discussion, laboratory, and field trips.

Prerequisite: Biology 141, 151. Taught: Annually, 5 semester credits.

#### 221 MARINE BIOLOGY

Clifton

Content: Physical, chemical, and biological processes that promote and maintain marine biodiversity. Ecological and evolutionary mechanisms at work within marine environments, with emphasis on natural selection processes that produce specific physiological adaptations, body types, and behavioral strategies. Lecture, discussion, laboratory; field trips to coastal habitats. Prerequisite: Biology 141, 151. Mathematics 115 or equivalent. Chemistry 120 or 135.

Taught: Alternate years, 5 semester credits.

## 222 ORNITHOLOGY

Staff

Content: Ecology, identification, and biology of Western birds. Lecture and

Prerequisite: Biology 141, 151.

Taught: Summer only, 5 semester credits.

## 244 PRACTICUM

Staff

Content: Supervised practical experience in lab and/or field techniques at Lewis & Clark or another Portland-area institution. Consult department faculty for further information.

Prerequisite: Consent of department and supervising faculty member.

Taught: Annually, 2 semester credits.

#### 311 MOLECULAR BIOLOGY

Lycan

Content: Advanced study of the structure and function of genes. Detailed analysis of the regulation of gene expression in prokaryotic and eukaryotic organisms, with emphasis on the molecular mechanisms underlying such biological problems as iron homeostasis, HIV infection, and sex determination. Discussions of original research papers focus on experimental design and data

Prerequisite: Biology 151. Biology 200 or consent of instructor. Chemistry 120 or 135.

Taught: Annually, 4 semester credits.

## 312 Molecular Biology Lab

Lycan

Content: Introduction to molecular cloning techniques and to the polymerase chain reaction. Students construct and screen a recombinant DNA library and then use the polymerase chain reaction to directly clone a gene of their choice.

Prerequisite: Biology 311 (may be taken concurrently).

Taught: Annually, 2 semester credits.

## 320 Molecular Basis of Disease

Lycan

Content: An investigation of the molecular and cellular bases of genetic diseases, the role of genes in disease, how mutations arise, and approaches to therapy. Ethical issues surrounding gene therapy and DNA diagnostics. Lectures, discussion of assigned papers from the primary literature, guest seminars by visiting scientists, and the development and presentation of oral seminars on particular diseases by students.

Prerequisite: Biology 151, 200, or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 335 Ecology

Bierzychudek

Content: Advanced study of the interactions between organisms and their physical and biological environment. Ecology of populations, communities, and ecosystems, theoretical and empirical approaches. Through reading original literature and designing their own studies, students learn to conduct ecological studies and interpret results. Applications of ecological principles to conservation issues and other environmental problems. Lecture and laboratory; weekend field trips.

Prerequisite: Biology 141, 151, 200. Mathematics 115 or equivalent. Chemistry 120 or 135.

Taught: Annually, 5 semester credits.

## 337 Environmental Physiology

Content: How major environmental parameters such as respiratory gases, pressure, temperature, and radiation have influenced short-term (acclimatization) and long-term (evolutionary) alterations in the physiology of animals. Lecture only.

Prerequisite: Biology 141, 151, 200. Chemistry 120 or 135.

Taught: Alternate years, 4 semester credits.

#### 338 ENVIRONMENTAL PHYSIOLOGY LAB

Autumn

Content: Introduction to experimental methods in environmental physiology and the scientific process. Students work on open-ended experiments using modern transducers and computer data acquisition, develop strong science writing skills by producing two short scientific papers, and present results of an independent project at an in-class symposium.

Prerequisite: Biology 141, 151, 200. Chemistry 120 or 135. Concurrent

enrollment in Biology 337.

Taught: Alternate years, 1 semester credit.

#### 342 REPRODUCTIVE BIOLOGY OF SEED PLANTS

Seavev

Content: The reproductive processes of seed plants, including pollination and pollen tube biology, embryology, seed dispersal. Cytological, physiological, and ecological aspects of reproductive biology of gymnosperms and angiosperms.

Lecture and laboratory.

Prerequisite: Biology 141, 151, 200. Chemistry 120 or 135.

Taught: Alternate years, 5 semester credits.

#### 352 Animal Behavior

Clifton

Content: Advanced study of animal behavior, from insects to marine mammals. How and why animals behave as they do. Focus on the adaptiveness of animal behavior using a strong ecological and evolutionary theme. Methods and results associated with animal behavior studies. Lecture, readings in original literature, laboratory, two weekend field trips.

Prerequisite: Biology 141, 151, 200. Mathematics 115 or equivalent. Chemistry 120 or 135.

Taught: Annually, 5 semester credits.

## 361 CELL BIOLOGY

Hermann, Reiness

Content: Application of the techniques of biochemistry, microscopy, and molecular biology to the study of cell structure, function, and physiology. Membrane structure and function, signal transduction, protein and organelle traffic within cells, cell growth and division. Lecture and laboratory.

Prerequisite: Biology 151, 200. Chemistry 120 or 135.

Taught: Annually, 5 semester credits.

## 375 COMPARATIVE PHYSIOLOGY

Autumn

Content: How different kinds of animals work and why they have evolved to work the way they do. Body size, metabolism, muscle, respiration, cardiovascular function, acid-base balance, temperature, osmoregulation. Common physiological principles that transcend differences in evolutionary history. Physiological adaptations to environmental challenges. Constraints on physiological evolution. Emphasis on recent experimental discoveries and unanswered questions. Intended for biology, biochemistry, and environmental studies majors. Lecture and laboratory.

Prerequisite: Biology 141, 151, 200, or consent of instructor. Mathematics 131 or Computer Science 171 or Physics 141 recommended.

Taught: Annually, 5 semester credits.

#### 390 Evolution

Bierzychudek, Binford

Content: Advanced study of the mechanisms responsible for evolutionary change and of their results. History of evolutionary thought, evolution of single-gene and quantitative genetic traits. Role of evolutionary ideas in issues such as species conservation, medicine, eugenics, science-religion "conflicts." Lecture only.

Prerequisite: Biology 141, 151, 200. Chemistry 120 or 135.

Taught: Alternate years, 4 semester credits.

## 408 PHYLOGENETIC BIOLOGY

Binford

Content: Advanced study of methods and models of reconstructing patterns of evolutionary history. Use of phylogenies to test hypotheses of evolutionary processes including adaptation, evolutionary constraints, evolutionary rates,

biogeography, and coevolution. Prerequisite: Biology 141, 151, 200; 390 recommended.

Taught: Alternate years, 5 semester credits.

## 412 DEVELOPMENTAL BIOLOGY

Hermann

Content: Multidisciplinary study of the process by which multicellular organisms develop from a single fertilized egg. Fertilization, cleavage, gastrulation, early morphogenesis, and organogenesis studied with an emphasis on the molecular, cellular, and genetic mechanisms underlying development. Discussion of current research literature with critical analysis of experimental design and data. Lecture and laboratory. Laboratory focuses on genetic control of development.

Prerequisite: Biology 311 or 361, or consent of instructor.

Taught: Alternate years, 5 semester credits.

#### 422 NEUROBIOLOGY

Reiness

Content: Advanced study of the biology of the nervous systems of vertebrates and invertebrates. Cellular and molecular approaches. Electrical signaling in excitable cells, the physiology and biochemistry of synaptic transmission, neuropharmacology. The biological bases of learning, memory, and some neurological disorders. Laboratory focus on student-designed projects. Lecture and laboratory.

Prerequisite: Biology 151 and 200. Chemistry 120 or 135.

Taught: Alternate years, 5 semester credits.

## 462 Immunology

Reiness

Content: Study of the cellular basis of the immune response, with emphasis on biochemical, molecular genetic, and cell biological approaches. Generation of antibody diversity. The functions of B lymphocytes, T lymphocytes, and antigen presenting cells. The structure and function of proteins encoded by the Major Histocompatibility Complex. Immunity to infection, autoimmunity, and cancer immunology. Lecture; reading and discussion of original scientific literature.

Prerequisite: Biology 151 and 200. Biology 311 or 361, or consent of instructor. Taught: Alternate years, 4 semester credits.

#### 490 Special Topics in Biology

Staff

Content: Advanced study of current issues in biology, as determined by student and/or faculty interest. May extend existing areas of the curriculum or explore new subjects.

Prerequisite: Biology 141, 151, 200, or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 495 BIOLOGY SENIOR RESEARCH

Staff

Content: Yearlong field or laboratory research project designed and executed by a student with guidance from two faculty mentors.

Prerequisite: Senior standing. Approval of research proposal by department and two supervising faculty members. Students with a GPA of 3.500 in major and overall will be eligible for honors in biology upon graduation if their thesis is deemed meritorious by the department.

Taught: Annually, 3 semester credits each semester.

## **499 INDEPENDENT STUDY**

Staff

Content: Participation in a faculty-supervised research or individual study project at Lewis & Clark or another research institution in the metropolitan area. Further information available from biology department faculty members. Prerequisite: Approval of project or study proposal by department and supervising faculty member.

Taught: Each semester, 2-4 semester credits.

# Chemistry

#### CHAIR: LOUIS Y. KUO

The Department of Chemistry curriculum serves three groups of students: chemistry and biochemistry majors, other science and engineering majors, and nonscience majors.

## THE MAJOR PROGRAM

The Department of Chemistry provides a flexible, challenging curriculum to accommodate and encourage a diversified approach to the major. Following a core of required courses in general, organic, and physical chemistry, including laboratories, students select advanced courses from several electives.

In all chemistry courses, instructors encourage students to think for themselves and work independently. This is accomplished in some classes by having students work at the blackboard in small discussion groups to solve problems. In other courses, students survey chemical literature to make class presentations or write papers to discuss the nature of the work under study.

All students are encouraged to participate in research with a faculty member at the earliest opportunity, often as early as the sophomore year. The department uses research not only to foster independence of thought but also as a means of teaching students to teach themselves. Although the emphasis is on educating students, projects explore current areas of research and are often supported by grants. Frequently, projects result in publications coauthored by students and faculty.

Since the department's curriculum is regularly reviewed and approved by the Committee on Professional Training of the American Chemical Society (ACS), a student may select the specific set of courses that leads to an ACScertified degree. Students also have the option of meeting the major requirements with courses that more closely reflect their particular interests and more optimally prepare them for certain advanced fields of study. Students who expect to attend a professional school after graduation (medicine, dentistry, pharmacy, and so on) will find that the flexible chemistry major curriculum more than meets their needs. A chemistry major may also elect to complete a series of education and certification courses and teach chemistry at the high school level following graduation.

## Major Requirements

A minimum of 40 semester credits in chemistry, plus courses in mathematics and physics, distributed as follows:

- 1) General chemistry: 110 and 120, or 115 and 135.
- 2) Organic chemistry: 210, 220.
- 3) Physical chemistry: 310, 320.
- 4) Advanced laboratory: 365, 366.
- **5)** Seminar: 405.
- **6)** Advanced courses: 420 plus an upper-division elective selected from 300, 330, 335, 443, 450, 453.
- **7)** Mathematics 131, 132.
- 8) Physics 141, 142 or Physics 151, 152, 251.

Note: For an American Chemical Society–certified major, in addition to the above requirements, the student must complete Chemistry 330 or 335 and 450, and one additional course at the 300 or 400 level (greater than 310). Mathematics 225, 233, and 235 are strongly recommended.

## MINOR REQUIREMENTS

A minimum of 24 semester credits (five courses) taken for a grade, including:

- 1) General Chemistry: 110 and 120, or 115 and 135.
- 2) Organic Chemistry: 210, 220.
- **3)** Four to six semester credits of chemistry courses at the 300 or 400 level.

#### SPECIAL PROGRAMS

The departments of chemistry and biology offer an interdisciplinary biochemistry major. See Biochemistry listing.

#### HONORS AND SENIOR RESEARCH

Students are especially encouraged to do senior-level thesis research. Students who have distinguished themselves academically through the junior year (GPA of 3.500 or higher in chemistry and overall) are invited to participate in the honors program. Students who complete the program are, with faculty approval, awarded honors in chemistry on graduation. Students not qualifying for the honors program may elect to participate in the senior research program. In both programs, each student proposes a research project in consultation with a faculty member, presents the proposal to the department in a seminar, performs the laboratory work, prepares a written thesis, and defends the thesis orally before the department faculty.

#### RESOURCES FOR NONMAJORS

Perspectives in Environmental Chemistry (Chemistry 100) and Perspectives in Nutrition (Chemistry 105) are specifically designed to help nonscience majors learn chemistry and relate it to the world around them.

#### FACILITIES

The Olin Center for Physics and Chemistry has more than 40,000 square feet of classroom, laboratory, and study space. Facilities and equipment used by the chemistry department include: one lecture-demonstration theatre; a well-equipped biochemistry laboratory; modern scientific instrumentation (FT-NMR, FT-IR, GC-MS, HPLC, UV-VIS, AA, 10 SGI workstations); a data analysis room; an organic chemistry instrumentation room; special laboratories for general chemistry, organic chemistry, and advanced analytical, physical, and inorganic chemistry; student-faculty research laboratories.

## FACULTY AND STAFF

Barbara A. Balko, associate professor. Physical chemistry. James A. Duncan, professor. Physical organic chemistry.

Stacey L. Fiddler, instructor and laboratory director.

Louis Y. Kuo, professor. Organometallic/bioorganic chemistry, biochemistry.

Janis E. Lochner, Dr. Robert B. Pamplin Jr. Professor of Science. Biochemistry. Nikolaus Loening, assistant professor. Physical chemistry.

William J. Randall, professor. Inorganic/analytical chemistry.

Evan T. Williams, professor. Environmental chemistry.

## 100 Perspectives in Environmental Chemistry

Balko, Duncan, Kuo, Williams

Content: General chemistry concepts developed for a more thorough understanding of chemically related environmental issues such as meeting energy needs (including nuclear energy), atmospheric pollution (the greenhouse effect, stratospheric ozone depletion, photochemical smog, acid rain), and plastics. Lecture, laboratory.

Prerequisite: Mathematics 055 or equivalent.

Taught: Annually, 4 semester credits.

#### 105 Perspectives in Nutrition

Lochner

Content: The fundamental basis of human nutritional needs and contemporary controversies in nutrition. Extracting energy from carbohydrates, fats, and proteins; essential amino acids and the cellular synthesis of proteins; watersoluble vitamins in major nutrient metabolism; biological function of fatsoluble vitamins; physiological roles of minerals. Readings on contemporary controversies in nutrition including the relationship between diet and disease. Lecture, laboratory.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 110 GENERAL CHEMISTRY I

Balko, Loening, Randall, Williams

Content: Introduction to the general principles of chemistry required for students planning a professional career in chemistry, a related science, the health professions, or engineering. Stoichiometry, atomic structure, chemical bonding and geometry, thermochemistry, gases, types of chemical reactions, statistics. Weekly laboratory exercises emphasizing quantitative techniques complement the lecture material. Weekly discussion sessions focusing on homework assignments and lecture material. Lecture, discussion, laboratory. Prerequisite: Mathematics 055 or equivalent. Previous high school chemistry not required.

Taught: Annually (fall), 5 semester credits.

## 115 GENERAL CHEMISTRY (ACCELERATED)

Balko, Kuo

Content: One-semester alternative to Chemistry 110 and 120 for students with a strong preparation in high school chemistry. Material covered in greater depth than 110/120 to enable students to investigate topics currently of interest in chemistry. Atomic theory and structure; chemical reactions; properties of gases, liquids, solids; fundamental quantum theory and spectroscopy; bonding; thermodynamics; kinetics; equilibria; electrochemistry. Depending on class interest, additional topics may include modern problems such as atmospheric pollution or modern equipment such as lasers and FT-NMR. Associated laboratory complements the lecture and gives students techniques required in advanced chemistry courses. Lecture, laboratory. Prerequisite: Strong high school background in chemistry and mathematics. Consent of instructor.

Taught: Alternate years, 5 semester credits.

#### 120 GENERAL CHEMISTRY II

Balko, Loening, Randall, Williams

Content: Continuation of General Chemistry I. Chemical equilibrium, kinetics, thermodynamics, electrochemistry, descriptive inorganic chemistry, coordination chemistry, nuclear chemistry. Weekly laboratory exercises, emphasizing quantitative techniques, complementing lecture material. Weekly discussion sessions covering homework assignments. Lecture, discussion, laboratory.

Prerequisite: Chemistry 110 or 115 or equivalent. Taught: Annually (spring), 5 semester credits.

## 135 GENERAL CHEMISTRY LABORATORY (ACCELERATED)

Balko, Kuo

Content: Application of lecture and laboratory material learned in Chemistry 115. Further introduction to basic laboratory techniques and use of more sophisticated equipment through laboratory projects related to topics in current chemical research. Prelab and postlab lectures connect first-semester course material to lab work. Project format encourages and prepares students to do research.

Prerequisite: Chemistry 115.

Taught: Alternate years, 3 semester credits.

#### 210 Organic Chemistry I

Duncan, Kuo

Content: The basic principles of organic chemistry from a mechanistic perspective. Bonding (Lewis structures, atomic and molecular orbitals); stereochemistry (chiral compounds, enantiomers, diastereomers, conformers, optical activity, Fischer projections); nomenclature; chemistry of alkanes (free radical substitution, reaction-coordinate energy diagrams, asymmetric induction); chemistry of alkyl halides, alcohols, ethers (substitution and elimination reactions, carbocations, pKa, nucleophilicity, leaving groups, kinetics); infrared (IR) and nuclear magnetic resonance (NMR) spectroscopy; chemistry of alkenes (addition and elimination reactions, oxidation and reduction, hydroboration, inductive and resonance effects of substituents, regio- and stereoselectivity); chemistry of alkynes (acidity, addition reactions); introduction to organometallic compounds. Lecture, discussion, laboratory. Prerequisite: Chemistry 120 or 135.

Taught: Annually, 5 semester credits.

#### 220 Organic Chemistry II

Duncan, Kuo

Content: Chemistry of aldehydes and ketones (reactions at and adjacent to the carbonyl group, enolization, conjugate addition, oxidation, reduction). Lecture, conference, laboratory. Synthesis; chemistry of carboxylic acids and derivatives (pKa of acids, nucleophilic substitution of derivatives, acyl chlorides, esters, amides, anhydrides, nitriles). Carbohydrates (stereochemistry, aldoketoses, aldopentoses, aldohexoses, ketosugars, derivatives, furanose and pyranose forms, reducing and nonreducing sugars, disaccharides and polysaccharides); fats and oils; aromatic hydrocarbons (benzene, resonance and molecular orbital approaches, electrophilic and nucleophilic aromatic substitution); aromatic nitrogen and oxygen chemistry (diazotization, synthesis); chemistry of amines, amino acids, peptides, proteins, DNA; other topics. Lecture, discussion, laboratory.

Prerequisite: Chemistry 210.

Taught: Annually, 5 semester credits.

#### 299 INDEPENDENT STUDY

Staff

Content: Laboratory research or individual study topics arranged in consultation with a faculty supervisor.

Prerequisite: Consent of department chair and supervising faculty member.

Taught: Each semester, 1-4 semester credits.

#### 300 Environmental Chemistry

Balko, Williams

Content: Principles of chemistry applied to global, regional, and local problems of the earth's environment. Chemistry of the atmosphere and of natural and waste waters. Sources, reactions, and impact of chemical species on the environment and control strategies. Energy production.

Prerequisite: Chemistry 210.

Taught: Alternate years, 4 semester credits.

## 310 PHYSICAL CHEMISTRY: THERMODYNAMICS AND KINETICS

Balko, Loening

Content: Fundamental concepts of classical physical chemistry.

Thermodynamics—first, second, and third laws; phase equilibria; chemical equilibria; electrochemistry; kinetics—theory and practice; reaction mechanisms and reaction rates.

Prerequisite: Chemistry 120 or 135. Physics 142 or 152. Mathematics 132. Taught: Annually, 4 semester credits.

#### 320 Physical Chemistry: Statistical Mechanics and Quantum CHEMISTRY

Balko, Loening

Content: Statistical mechanics and the kinetic theory of gases; quantum mechanics; quantum theory; atomic and molecular spectroscopy; magnetic resonance spectroscopy; molecular symmetry.

Prerequisite: Chemistry 120 or 135. Physics 142 or 152. Mathematics 132. Taught: Annually, 4 semester credits.

#### 330 STRUCTURAL BIOCHEMISTRY

Lochner

Content: The structure-function relationship of biological molecules. Principles governing protein folding and methods used to assess protein structure; case studies illustrating how protein structure dictates function; DNA structure and the chemistry of protein-DNA interactions; membrane biochemistry and the dynamics of membrane organization; role of the membrane in facilitating transport, intracellular communication, and mediating the transmission of nerve signals. World Wide Web resources and computer-based molecular models used to probe biomolecular structures.

Prerequisite: Chemistry 220.

Taught: Annually, 4 semester credits.

## 335 METABOLIC BIOCHEMISTRY

Lochner

Content: Systematic assessment of how the cell derives metabolic energy and uses the energy to drive biosynthetic reactions. Principles of thermodynamics as applied to biological transformations of energy; allosterism and enzyme reaction mechanism; metabolic regulation in guiding the flow of cellular metabolites; defects in metabolic pathways; the biochemical basis of disease.

Prerequisite: Chemistry 220.

Taught: Annually, 4 semester credits.

#### 336 BIOCHEMISTRY LABORATORY

Lochner

Content: Contemporary biochemical techniques introduced in a project-based format. Protein purification using both recombinant DNA techniques and classical tools such as affinity chromatography; functional characterization of the purified protein. Cellular metabolic responses and transmembrane signaling reactions studied using HPLC, radioisotope studies, enzyme analyses.

Prerequisite: Chemistry 330 or 335. Taught: Annually, 2 semester credits.

## 365 Physical Chemistry Laboratory

Balko, Loening

Content: Laboratory course to demonstrate principles of physical chemistry and to develop research aptitude in chemistry. Investigation of thermochemistry, electrochemistry, kinetics, spectroscopy, and solid-state studies using calorimetry; voltammetry; UV-visible, IR, NMR, Mass spectroscopies; and X-ray diffraction. Attendance at departmental seminars required. Lecture, laboratory, oral presentations.

Prerequisite: Chemistry 310 (may be taken concurrently).

Taught: Annually, 3 semester credits.

#### 366 INORGANIC CHEMISTRY LABORATORY

Kuo, Randall

Content: Introduction to classical and modern techniques for synthesizing inorganic compounds of representative and transition metal elements and the extensive use of IR, NMR, Mass, and UV-visible spectroscopies and other physical measurements to characterize products. Attendance at departmental seminars required. Lecture, laboratory, oral presentations.

Prerequisite: Chemistry 220.

Taught: Annually, 3 semester credits.

## **405 CHEMISTRY SEMINAR**

Content: Preparation and delivery of a seminar with accompanying abstract and bibliography. The seminar focus is either on a relevant topic in the chemical literature or, for students pursuing senior and honors research, on the thesis proposal.

Prerequisite: Senior standing.

Taught: Each semester, 1 semester credit.

#### 420 ADVANCED INORGANIC CHEMISTRY

Randall

Content: Modern concepts of inorganic and transition metal chemistry with emphasis on bonding, structure, thermodynamics, kinetics and mechanisms, periodic and family relationships. Atomic structure, theories of bonding, symmetry, molecular shapes (point groups), crystal geometries, acid-base theories, survey of familiar elements, boron hydrides, solid-state materials, nomenclature, crystal field theory, molecular orbital theory, isomerism, geometries, magnetic and optical phenomena, spectra, synthetic methods, organometallic compounds, cage structures, clusters, lanthanides, actinides. Prerequisite: Chemistry 320 or consent of instructor.

Taught: Annually, 4 semester credits.

## 443 MEDICINAL ORGANIC CHEMISTRY

Kuo

Content: Bioorganic chemistry for selected medicinal compounds. Biophysical and chemical concepts of drug-receptor interactions and drug action. Biochemical basis for drug action elucidated in the context of fundamental organic mechanisms.

Prerequisite: Chemistry 220.

Taught: Annually, 4 semester credits.

#### 450 Instrumental Analysis

Loening, Randall

Content: Modern analytical chemistry theory and applications. Digital and analog electronics, computer interfacing, absorption and emission spectroscopy, X-ray and radiochemical methods, liquid and gas chromatography, electrochemical methods, mass spectrometry, hyphenated techniques (e.g., GC-mass spectrometry). Application of methods for sample analysis in the laboratory. Lecture, laboratory.

Prerequisite: Chemistry 310.

Taught: Alternate years, 4 semester credits.

#### 453 ADVANCED MECHANISTIC ORGANIC CHEMISTRY

Duncan

Content: Theoretical relationships between organic structure and reactivity. Stereochemistry; linear free-energy relationships; kinetics; kinetic isotope effects; carbenes; rearrangements; molecular orbital theory; pericyclic reactions; photochemistry.

Prerequisite: Chemistry 220 and 310, or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 480 SENIOR RESEARCH

Staff

Content: Experimental and/or theoretical research on an advanced topic of current significance in chemistry. Students present their thesis proposals in an early fall seminar and detail results of their investigations in a thesis in the spring.

Prerequisite: Senior standing, consent of instructor.

Taught: Annually, 4 semester credits each semester of the senior year.

## 490 CHEMISTRY HONORS RESEARCH

Staff

Content: Experimental and/or theoretical research on an advanced topic of current significance in chemistry. Students present their thesis proposals in an early fall seminar and detail results of their investigations in theses in the spring.

*Prerequisite:* By invitation only.

Taught: Annually, 4 semester credits each semester of the senior year.

#### 499 INDEPENDENT RESEARCH

Staff

Content: Participation in a faculty-supervised research project. Details, including academic credit, determined by the student in consultation with faculty supervisor.

Prerequisite: Junior standing, research experience, consent of department chair and supervising faculty member.

Taught: Each semester, 1-4 semester credits.

## Communication

#### CHAIR: PETER G. CHRISTENSON

From its humanistic roots in ancient Greece to its social science applications in modern technology and media, communication is a dynamic and unique field of study—one of the oldest and one of the newest disciplines. Grounded in the classical liberal arts tradition of rhetoric and public discourse, the communication discipline addresses contemporary concerns about organizational, interpersonal, and intercultural communication; information technologies; and electronic media messages. While communication touches us daily and is part of every human interaction, no other discipline takes these messages and their consequences as its unique focus.

The Department of Communication offers a challenging and integrated study of theory and practice in historical and contemporary communication. The discipline of communication, which is rooted in the classical study of rhetoric, combines both humanistic and social science perspectives, and the curriculum focuses on the content, transmission, and consequences of oral, print, and electronic messages. An understanding of the communication process, including the social construction of meaning, is central to the life of a liberally educated person and to the development of critical and creative thinking, speaking, listening, and writing.

#### THE MAJOR PROGRAM

The major in communication combines core requirements with the flexibility of electives. Requirements involve the historical and contemporary study of persuasion; the critical evaluation of communication theories and practices related to interpersonal interactions, organizations, public discourse, and the mass media; engagement with both quantitative and qualitative research methods; and the satisfactory completion and presentation of senior research. These requirements are essential for the student who intends to pursue postgraduate study or enter a communication-related field.

Students should declare the communication major by the end of the sophomore year to provide maximum flexibility in planning for core requirements and electives. Students are also encouraged to consult with their department advisers about coursework from other departments that can be appropriately integrated into their study of communication. Each communication major is expected to complete a research project during the senior year. Students who are working on their projects should enroll in Communication 480, Senior Seminar.

#### MAJOR REQUIREMENTS

A minimum of 40 semester credits, distributed as follows:

- 1) Communication 100.
- 2) Two methods courses: Communication 260 and either 265 or 271. Sociology/anthropology courses in quantitative and qualitative methods may be substituted for Communication 260 and 271, respectively; Political Science 201 may be substituted for Communication 260.
- Two communication theory and praxis courses: Communication 200 and 210.
- 4) Sixteen semester credits of communication electives. Students may apply a maximum of 4 semester credits, total, in practicum and/or independent study to the major. At least 12 semester credits of electives must be at the 300 or 400 level.
- 5) Successful completion and presentation of the senior project (4 semester

credits, attained through Communication 480).

#### MINOR REQUIREMENTS

A minimum of 24 semester credits, distributed as follows:

- 1) Communication 100.
- 2) One methods course: Communication 260, 265, or 271. Sociology/ anthropology courses in quantitative and qualitative methods may be substituted for Communication 260 and 271, respectively. Political Science 201 may be substituted for Communication 260.
- **3)** One communication theory and praxis course: Communication 200 or 210.
- 4) Twelve semester credits of communication electives. Practicum and independent study coursework is not counted toward the minor. Eight semester credits of electives for the minor must be at the 300 or 400 level.

#### ACTIVITIES

Public Advocacy. Competitive forensics and noncompetitive public forum activities. Students may compete in policy or parliamentary debate, extemporaneous speaking, oratory, expository, after-dinner speaking, and oral interpretation in intercollegiate tournaments. Students may qualify for Pi Kappa Delta, a national speech honorary. The forensics squad has earned national recognition. Credit is available for qualified students through the practicum program.

KLC Radio. One of the largest campus activities. The station broadcasts to the campus 12 hours a day, seven days a week. Credit is available for qualified students through the practicum program.

Pioneer Log. The weekly student newspaper of Lewis & Clark. Students work in all phases of newspaper production: reporting, editing, photography, electronic publishing, advertising, and layout. Credit is available for qualified students through the practicum program.

## PRACTICUM PROGRAM

A variety of practica and internships are available to qualified students. The practicum program provides an opportunity to explore the relationship between theoretical concepts and skills learned in the classroom and the work done in various organizations, including community service agencies, government offices, advertising companies, and the media. Practicum credit is also available for participation in the Public Advocacy, KLC Radio, and Pioneer Log organizations at Lewis & Clark. The practicum experience is supervised by communication department faculty and involves additional readings and written assignments beyond the time spent in the organization. Credit is offered on a credit-no credit basis through Communication 244 and 444, Practicum. A detailed written description of the practicum program and its requirements is available in the department.

#### Honors

Communication majors with a grade point average of 3.500 or higher overall and in the major are invited by the department to prepare their senior projects as honors projects. Senior projects submitted for consideration for honors normally require more extensive preparation than other senior projects. Two faculty members assist the student and evaluate the project on completion. Students whose projects are deemed worthy are granted honors on graduation.

## RESOURCES FOR NONMAJORS

With the exception of the senior project, most courses in communication are open to nonmajors who have completed the prerequisites. The introductory course (Communication 100) is useful to the general student. Advanced courses such as Communication and Conflict (310), Ethical and Legal Issues in the Mass Media (322), and Legal Communication (354) serve students with more specialized interests. Applied laboratory experiences in forensics, KLC Radio, and the *Pioneer Log* student newspaper are also appropriate to a variety of majors. Department sponsorship of practicum experiences is usually available only to majors.

#### **FACILITIES**

Radio facilities. Located in Templeton Student Center, KLC Radio includes two fully equipped stereo studios, a newsroom, and offices. The station transmits on campus via a closed-circuit network.

Print facilities. Pioneer Log offices are located in Templeton Student Center. Students have use of a darkroom and electronic publishing technology. Video facilities. Lewis & Clark's video production facility includes digital and analog editing capabilities, computer graphics, portable color cameras and recording equipment, and a multiple-camera color production studio. Additional video recording systems are available on campus.

#### FACULTY

Peter G. Christenson, professor. Media and society, quantitative research methods, media and socialization, popular music as communication. Steven B. Hunt, professor. Argumentation and advocacy; political, persuasive, rhetorical, and legal communication.

Stuart J. Kaplan, associate professor. Communication technology and society, video and audio aesthetic theory and methods, research methods. William J. Kinsella, assistant professor. Organizational communication, communication theory, qualitative research methods, communication and culture, communication and conflict, interpersonal communication, and rhetoric of science and technology.

Jean M. Ward, professor. Women's rhetoric, public address, protest rhetoric, gender and communication.

## 100 Introduction to Communication

Staff

Content: Introduction to the conceptual and philosophical foundations of the communication discipline, from classical rhetorical theory through contemporary perspectives, including critical theories of human interaction. How humans construct and negotiate meaning in different contexts, including interpersonal relationships, public address, small groups and organizations, and mass media. Moral, ethical, and policy issues.

Prerequisite: None.

Taught: Each semester, 4 semester credits.

## 200 Mass Media Messages: Design and Analysis

Christenson, Kaplan

Content: Theory, aesthetics, and practice in the production of mass media messages. Organizing principles and aesthetic theories concerning writing for print and electronic media, message organization, visual composition, photography, audio production, basic editing. Ethical responsibilities to information sources and audiences.

Prerequisite: Communication 100 or consent of instructor.

Taught: Each semester, 4 semester credits.

## 210 Public Discourse

Hunt, Ward

Content: Development of basic public speaking skills, listener-critic abilities, and appreciation for the role of public discourse in society. Library research, organization and outlining, language style, presentation skills, rhetorical/

communication criticism.

Prerequisite: None.

Taught: Each semester, 4 semester credits.

#### 244 PRACTICUM

Staff

Content: Field learning experience combining theoretical concepts and skills learned in the classroom with practical work in on-campus and off-campus organizations. Additional readings and written assignments required. For three specific practica—Forensics, KLC Radio, and Pioneer Log—students should enroll noting practicum: Forensics or KLC or *Pioneer Log*.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits. May be repeated for credit. Maximum of 4 semester credits, total, in practicum and/or independent study may be counted toward the major.

## 260 QUANTITATIVE RESEARCH METHODS

Christenson, Kaplan

Content: All facets of the research process: philosophy of science, hypothesis formation and testing, experimental and nonexperimental research designs, the logic and use of random sampling procedures, measurement validity and reliability, frequently used measurements (including paper-and-pencil questionnaires, content analysis, nonreactive measures), logic and application of common statistical tests, ethics of social science research.

Prerequisite: Communication 100 or consent of instructor.

Taught: Annually, 4 semester credits.

## 265 COMMUNICATION CRITICISM

Kaplan

Content: Methods of rhetorical criticism and semiotics as applied to public rhetoric, mass media messages, interpersonal interaction. Critical essays on message examples from varied communication contexts.

Prerequisite: Communication 100.

Taught: At least every other year, 4 semester credits.

## 271 QUALITATIVE METHODS IN COMMUNICATION RESEARCH

Content: Ethnographic, interpretive, and critical-interpretive research methods applied to the study of human communication. Foundational premises of qualitative research; methodological issues including validity, reliability, generalizability, reflexivity. Participant and nonparticipant observation, research interviewing, focus groups, analysis of verbal and nonverbal discourse and material culture, conversation analysis, case study methods.

Prerequisite: Communication 100 or consent of instructor.

Taught: At least every other year, 4 semester credits.

## 299 INDEPENDENT STUDY

Content: Independent reading and/or research in an area other than the normal course offerings of the department.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits. Maximum of 4 semester credits, total, in independent study and/or practicum may be counted toward the

## 304 CLASSICAL RHETORICAL THEORY

## Hunt, Ward

Content: Investigation of the nature, historical significance, and contemporary relevance of classical rhetorical theories and practices of the Greeks, Romans, and early Christians. Function of the citizen-orator, role of rhetoric in training responsible citizens, place of rhetoric in the trivium and quadrivium of classical education. Works of Isocrates and the Sophists, Plato, Aristotle, Cicero, Quintilian, Longinus, St. Augustine.

Prerequisite: Communication 100.

Taught: Alternate years, 4 semester credits.

#### 305 CONTEMPORARY COMMUNICATION THEORY

Kinsella

Content: Theoretical and philosophical underpinnings of the contemporary communication discipline; focus on selected scholars and their contributions. The social production of knowledge and meaning; communication, identity, and selfhood; language and power; the politics of discourse. Overview of structural-functionalist, systems, semiotic, linguistic, rhetorical, symbolicinteractionist, social constructionist, critical, cultural studies, and postmodernist approaches. Theorists such as Bakhtin, Bateson, Baudrillard, Berger and Luckmann, Blumer, Buber, Burke, Foucault, Giddens, Habermas, Lvotard, Mead.

Prerequisite: Communication 100.

Taught: Alternate years, 4 semester credits.

#### 310 COMMUNICATION AND CONFLICT

Kinsella

Content: Conflict as a basic and recurrent communication phenomenon in intrapersonal, interpersonal, group, organizational, social, political, and intercultural settings. Constructive and destructive conflict; conflict resolution and conflict management; forms and patterns of conflict; intervention, mediation, and negotiation techniques; dialogic models. Case studies and practical examples to illustrate theoretical principles.

Prerequisite: Communication 100 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 315 Interpersonal Communication

Kinsella

Content: The communicative production and reproduction of relationships between and among individuals. Selfhood and personal identity as participation in relationships; relational norms, patterns, meaning systems. Interpersonal communication skills and the creation, development, and enhancement of relationships in family, friendship, organizational, and intimate contexts. Interactions among culture, gender, language, and interpersonal relations.

Prerequisite: Communication 100 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 320 Organizational Communication

Kinsella

Content: Organizations as social/rhetorical constructions. Discourse, meaning, power in organizations; organizational language, culture, rituals, rules. Organizations as communication systems; production, circulation, interpretation of messages in organizational settings. Communication skills for effective participation in organizations; implications for management, leadership, selfhood, organizational democracy. Communicative relationships among organizations, and between organizations and society.

Prerequisite: Communication 100 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 322 ETHICAL AND LEGAL ISSUES IN THE MASS MEDIA

Christenson

Content: How legislatures, courts, administrative agencies, and the mass communication industries define the rights and responsibilities of the mass media. Evolution and application of First Amendment theory. Argumentation of hypothetical legal cases.

Prerequisite: Communication 100 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 325 THE DOCUMENTARY FORM

Kaplan

Content: Critical analysis of the television, film, radio, and multimedia documentary with emphasis on institutional practices that shape and sustain the genre, argument in documentaries, expectations of audiences. Organization of materials for documentaries, editing and montage, principles of visual composition as they relate to moving images, functions of sound, ethical considerations. Planning and production of short radio and television documentaries.

Prerequisite: Communication 200 or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 326 COMMUNICATION AND GENDER

Content: Communication and the social construction of gender. Effects of historical prescriptions and contemporary expectations for women's and men's interpersonal and public communication. Stereotypes, images, and mediated portrayals of men's and women's communication. Contemporary research findings on similarities and differences in women's and men's same-sex and opposite-sex communication.

Prerequisite: Communication 100 or consent of instructor.

Taught: At least every other year, 4 semester credits.

#### 340 COMPARATIVE MEDIA SYSTEMS

Christenson

Content: Theoretical perspectives on the political and social role of mass communication in developed and developing nations. Mass communication organizations, content, regulatory models, audiences in diverse cultures. Implications of public versus private ownership of mass media. Evaluation of claims of U.S. cultural imperialism.

Prerequisite: Junior standing; Communication 100 or consent of instructor. Taught: Alternate years, 4 semester credits.

#### 354 Legal Communication

Hunt

Content: Communication processes in the legal field, including the philosophy of the advocacy system, legal interviewing and counseling, alternative dispute resolution (negotiation, mediation, arbitration), trial practices, appellate

Prerequisite: Communication 210 or Political Science 255 or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 355 Political Communication

Content: Communication in the political process, especially in campaigning. Campaign finance, consulting, political debates, advertising, stump speaking, legal constraints on political communication, effects of the First Amendment on politics.

Prerequisite: Communication 210 or Political Science 103 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 356 RHETORIC OF WOMEN

Ward

Content: Rhetorical themes and strategies of American women's movements in the 19th and 20th centuries. The condition of woman examined through her oratory and other representative rhetorical forms. The quest for equal education, employment opportunities, suffrage, social reform. Minority women's concerns explored through their rhetoric. Less-known Western women and better-known Eastern women. Struggle for equal rights from a rhetorical-historical perspective. Comparison of old and new feminism. Prerequisite: Communication 100 or consent of instructor. Communication 265 recommended.

Taught: Alternate years, 4 semester credits.

#### 360 Persuasive Communication

Hunt, Ward

Content: Theory and praxis of persuasive communication in a free society. How symbolic messages influence people's attitudes, beliefs, values, behaviors. Practice in the creation and criticism of persuasive messages.

Prerequisite: Communication 100. Communication 260 or 265 recommended. Taught: Alternate years, 4 semester credits.

## 380 Mass Media and Socialization

Christenson

Content: Role of the mass media in the process of growing up. Television, popular music, and other media as influences in the personal and social lives of children and adolescents. Uses and misuses of empirical research in solving public policy issues related to media and children.

Prerequisite: Communication 100, 260. Taught: Alternate years, 4 semester credits.

## 385 RHETORIC OF SCIENCE AND TECHNOLOGY

Kinsella

Content: The rhetorical construction of science and technology as practices, discourse communities, and social institutions. Scientific argumentation and the production of knowledge, the communicative organization of scientific work, the rhetoric of science/society relations. Social and cultural impacts of scientific and technological rhetorics, dissemination of scientific knowledge, science literacy, public understanding of science.

Prerequisite: Communication 100 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 406 RHETORIC OF AMERICAN SOCIAL CONFLICTS

Hunt, Ward

Content: Rhetorical analysis of American social conflicts such as civil rights protests, women's movements, labor-management disputes, antiwar agitation. Prerequisite: Communication 100 or consent of instructor. Communication 265 recommended.

Taught: Alternate years, 4 semester credits.

## 430 COMMUNICATION AND CULTURE

Kinsella

Content: Culture as produced through systems and practices of communication; communication as a product of culture. Cross-cultural communication; cultural contexts for communication; rules and forms of expression in varied cultural settings. Cultural adaptation, codes, and appropriate communication behaviors; problems of intercultural critique. Communication in a global environment; diversity and multiculturalism.

Prerequisite: Junior standing; Communication 100 or consent of instructor. Taught: Annually, 4 semester credits.

#### 444 Practicum

Staff

Content: Same as Communication 244 but requiring more advanced work.

Prerequisite: Communication 100 and consent of instructor.

Taught: Each semester, 1-4 semester credits. May be repeated for credit. Maximum of 4 semester credits, total, in practicum and/or independent study may be counted toward the major.

## 460 COMMUNICATION TECHNOLOGY AND SOCIETY

Kaplan

Content: Cultural, political, and economic implications of major communication technology developments from the advent of broadcasting to contemporary telecommunication systems. Effects of technological change on freedom of expression, personal privacy, and equality of access to information and education. Framing public policy guidelines to maximize potential social benefits of new communication technologies. Planning and production of interactive multimedia program.

Prerequisite: Junior standing or consent of instructor. Taught: At least every other year, 4 semester credits.

## 480 SENIOR SEMINAR

Staff

Content: Advanced research and independent work. Students are encouraged to develop and refine their projects in conjunction with a specific 300- or 400level communication course. Substantial research paper or media project accompanied by a shorter analysis paper. Presentation at a public forum. Prerequisite: Senior standing.

Taught: Each semester, on a graded basis, 2 or 4 semester credits. May be taken twice for graded credit, for a maximum of 4 semester credits.

## 499 INDEPENDENT STUDY

Staff

Content: Advanced-level independent reading and/or research in an area other than the normal course offerings of the department.

Prerequisite: Junior standing, consent of instructor.

Taught: Each semester, 1-4 semester credits. Maximum of 4 semester credits, total, in independent study and/or practicum may be counted toward the major.

# Computer Science

A curriculum in computer science, leading to the major and the minor in computer science & mathematics, is administered by the Department of Mathematical Sciences. Interested students should consult this catalog under Mathematical Sciences. Students interested in the College's 3-2 cooperative program in computer science should consult this catalog under Engineering.

## Core

#### DIRECTOR OF THE FIRST-YEAR COURSE: BENIAMIN W. WESTERVELT

Inventing America fulfills the first half of a four-semester General Education requirement focusing on human history, society, and values across diverse regions of the world. This two-semester course explores the different meanings and instantiations of American ideals and first principles. Primary sources, class discussions, and occasional lectures are used to investigate tensions between freedom and equality; the benefits and limitations of democracy; the dynamics of inclusion and exclusion by race, class, gender, and ethnicity; and the problems of integration and cultural identity. One goal of Inventing America is to provide students with a foundation for the informed and complex perspective they need in order to engage in the conversation of citizenship and to understand, describe, and analyze the forces that shape our world. In addition, this course offers students numerous opportunities to develop and hone their skills in critical thinking, reading and writing, conducting independent research, and effective speaking and listening.

#### 110 Inventing America I

Staff

Content: Exploration of the foundational ideas of citizenship, including the contrasting European philosophical traditions that were antecedents to America's initial compact. Examination of conflict, compromise, and consensus in the Declaration of Independence and the Constitution. Emphasis on the diverse cultural, artistic, and political expressions of those excluded from, as well as included in, the initial compact of citizenship in the emerging republic.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 111 INVENTING AMERICA II

Staff

Content: Continued exploration of the ideas and practices of the American experiment. Examination of the tensions between equality and freedom, justice and authority, individualism and community, and conflict and consensus in America. Consideration of whether and how the Constitution has been responsive to fluidity and change in the emerging democracy, with particular attention to the Bill of Rights and subsequent amendments. Was it—and is it—possible for the United States to be simultaneously one and many, to have a common identity by virtue of the society's actual diversity? Themes and topics vary somewhat by section.

Prerequisite: None.

Taught: Annually, 4 semester credits.

# East Asian Studies

CHAIR: ALAN COLE

East Asian Studies is an interdisciplinary curriculum in which students concentrate on the study of the region of East Asia, principally China and Japan.

## THE MAJOR PROGRAM

Students considering a major in East Asian studies should begin by completing East Asia Studies 100 and one semester of Chinese or Japanese language study. Students should declare the major by the end of the sophomore year, at which time they must also choose their primary area of concentration

The major requires five semesters of Chinese or Japanese language, or the equivalent; three years of language, or the equivalent, are strongly recommended. The major also requires a minimum of one semester on an approved overseas study program in East Asia. Students should work with their adviser to ensure that their concentration and overseas study program build a strong foundation for the senior thesis.

The minor in East Asian studies enables students to combine a major in the arts, humanities, social sciences, or sciences with a focus on East Asian studies.

The East Asian studies curriculum is organized into the following core courses, concentrations, and South/Southeast Asia courses. See appropriate department listings for course descriptions and prerequisites.

## Core Courses

East Asian Studies

100 Introduction to East Asian Studies

400 Senior Thesis in East Asian Studies

310 Readings and Composition in Chinese

310 Readings and Composition in Japanese

## Concentration in Fine Arts, Literature, and Languages

152 History of Asian Art (China)

153 History of Asian Art (Japan)

250 The Meeting of Eastern and Western Art

254 History of Buddhist Art

352 Cities and the Arts in China

356 Art of the Print in Early Modern East Asia

451 Special Studies in Asian Art

Chinese

230 Introduction to Chinese Literature in Translation

290 Topics in Chinese Literature in Translation

410 Advanced Readings in Chinese: Society and Culture

East Asian Studies

156 The Art of Tea in Japanese Culture I

256 The Art of Tea in Japanese Culture II

Japanese

230 Introduction to Japanese Literature in Translation

290 Topics in Japanese Literature in Translation

410 Advanced Readings in Japanese: Society and Culture

420 Advanced Readings in Japanese: Fiction and Nonfiction

Music Performance

193 Japanese Koto

## Concentration in Social Sciences

**Economics** 

- 232 Economic Development
- 280 Political Economy of Japan
- 295 Political Economy of South Korea
- 314 International Economics

International Affairs

- 234 Japan in International Affairs
- 236 International Relations of Northeast Asia
- 332 Geopolitics

Sociology/Anthropology

- 272 Chinese Society
- 273 Japanese Culture: Gender and Identity
- 330 Inequality and Stratification in China

## Concentration in Religion and History

History

- 110 Early East Asian History
- 111 Making Modern China
- 112 Making Modern Japan
- 209 Japan at War
- 210 China's Golden Age (Tang and Song)
- 211 Reform, Rebellion, and Revolution in Modern China
- 215 Culture and Politics in Japan to 1600
- 310 China Discovers the West: Silk, Jesuits, Tea, Opium, and Milk
- 311 History of Family, Gender, and Sexuality in China
- 315 Japanese Intellectual History
- 316 Popular Culture and Everyday Life in Japanese History
- 400 Reading Colloquium (when focus is on East Asia)

Religious Studies

- 242 Religions and Cultures of East Asia
- 243 Buddhism: Theory, Culture, and Practice
- 354 Early Mahayana Buddhism
- 452 Seminar in Asian Religions

## South/Southeast Asia Courses

History

- 214 Southeast Asian History
- 217 The Emergence of Modern South Asia
- 218 Perspectives on the Vietnam War

Music Performance

- 121 Gamelan
- 137 Gamelan Class
- 139 Raga and Tala: Music of India

196 Sitar

Political Science

317 Southeast Asian Politics and Government

Religious Studies

241 Religion and Culture of Hindu India

Sociology/Anthropology

271 Island Southeast Asia in Anthropological Perspective

## MAJOR REQUIREMENTS

A minimum of 40 semester credits, distributed as follows:

- 1) East Asian Studies 100 and 400.
- 2) Chinese 310 or Japanese 310. (This course, or the equivalent, may be taken on an approved overseas program in East Asia.)

- 3) Six courses (or 24 semester credits) on East Asia to be distributed as follows: three courses (or 12 semester credits) from the student's designated area of concentration; two courses (or 8 semester credits) from a second area of concentration; one course (or 4 semester credits) from the remaining area of concentration. At least two of these courses must be at the 300 or 400 level; at least one must be in the designated area of concentration.
- 4) One course (or 4 semester credits) focusing on South/Southeast Asia.
- **5)** A minimum of one semester overseas on an approved program in East Asia. See Overseas and Off-Campus Programs office for specific program and application information.

Two courses taken on an overseas program may be applied to the major, depending on the number and level of courses. Additional offerings may also be accepted as electives at the discretion of the program chair.

When requirements for two majors overlap, a student must complete at least 28 discrete semester credits in each major. When requirements for a major and a minor overlap, a student must complete at least 28 discrete semester credits in the major and 12 discrete semester credits in the minor.

## MINOR REQUIREMENTS

A minimum of 20 semester credits to be distributed as follows:

- 1) East Asian Studies 100.
- 2) One course (or 4 semester credits) taught in Chinese or Japanese at a level beyond 201, chosen from: Chinese 202, 251, 252, 310, 320, 410; Japanese 202, 251, 252, 310, 320, 410, 420. (This course, or the equivalent, may be taken on an approved overseas study program in East Asia.)
- 3) Three courses (or 12 semester credits) focusing on East Asia. These courses must be chosen from at least two different areas of concentration. At least one course must be at the 300 or 400 level.

Participation in an East Asian overseas studies program is strongly recommended.

One course taken on an overseas program may be applied to the minor, depending on the number and level. Certain offerings may also be accepted as electives at the discretion of the program chair.

A minimum of 12 semester credits must be discrete to the minor (may not be used in any other set of major or minor requirements).

The honors program is based on the senior thesis or project. All East Asian studies majors who have a GPA of 3.500 or higher in the major are eligible. After review by the student's thesis or project faculty supervisor and other members of the sponsoring faculty, theses are nominated for honors. Work judged to be of superior quality merits the award of honors on graduation.

## FORTHCOMING OVERSEAS STUDY PROGRAMS

Beijing, fall 2003, spring 2004 (with option of full year)

Guilin, fall 2004

Harbin, spring 2004

(For more information on these programs and on programs in Taiwan, see overseas program descriptions under Foreign Languages and Literatures in this catalog.)

Japan:

Sapporo, fall 2003, fall 2004

Osaka (Kansai Gaidai), fall 2003, spring 2004 (with option of full year) (For more information about programs in Japan, see overseas program

descriptions under Foreign Languages and Literatures in this catalog.)

## SPONSORING FACULTY

Linda Isako Angst, assistant professor of anthropology.

Jane Monnig Atkinson, professor of anthropology.

Andrew Bernstein, assistant professor of history.

Lisa Claypool, assistant professor of art history.

Alan Cole, associate professor of religious studies.

Keith Dede, assistant professor of Chinese.

Michie Shinohara Deeter, instructor in Japanese.

Susan Glosser, associate professor of history.

Martin Hart-Landsberg, professor of economics.

Nisha Joshi, instructor in music.

Stephen A. Lambo, assistant professor of international affairs.

Meiru Liu, instructor in Chinese.

Tamara Perkins, assistant professor of East Asian studies.

Bruce Suttmeier, assistant professor of Japanese.

Jan Waldmann, instructor, East Asian studies.

## 100 Introduction to East Asian Studies

#### Perkins

Content: Introduction to the theory, form, and content of East Asian studies, with emphasis on China, Japan, and Korea. Regional cohesiveness, intraregional differences, and extraregional relations, with special attention to the physical and conceptual boundaries between Asia and non-Asia, past and present. Sociopolitical thought and religious world views; literary and visual arts; modern nation-building and definitions of cultural identities; effects of rapid modernization; power and political economy; class, ethnic, and gender distinctions; social movements and popular protest; minorities and immigration; colonial and postcolonial relations. Readings discussed in colloquium format; short papers on selected topics. Electronic bibliographic search methods. Lectures by faculty whose research and scholarship are related to Asia.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 156 THE ART OF TEA IN JAPANESE CULTURE I

#### Waldmann

Content: Examination of the traditional art of tea, practiced in Japan for over 400 years, and its interrelationship with Japanese culture. Study of tea masters of the past, famous as performers of the art, arbiters of taste, and confidants of rulers. Aesthetics, philosophy, cultural and political relationships, ceramic arts, architecture, landscape design. Practice of the ritualized forms for making and drinking tea, and forms of social interaction expressed in the practice.

Prerequisite: None.

Taught: Annually, 2 semester credits.

## 244 PRACTICUM

Staff

Content: Opportunities for well-prepared students to put academic concepts and techniques to work in the private or public sector, or field learning experience combining theoretical concepts and skills learned in the classroom with practical applications, particularly in conjunction with an approved overseas program in East Asia. Specific activities vary. Written report on the practicum experience.

Prerequisite: None. Students must be well-prepared prior to enrollment and consult the supervising faculty about the project in advance.

Taught: Annually, 1-4 semester credits, credit—no credit.

## 256 THE ART OF TEA IN JAPANESE CULTURE II

Waldmann

Content: Continuing exploration of the complex relationship between tea tradition and other Japanese cultural arts. More complex procedures for handling utensils and preparing tea. How meaning is expressed through gestures and movements. More advanced critical examination of the art, including study of different modes of tea gatherings.

Prerequisite: East Asian Studies 156 or consent of instructor.

Taught: Annually, 1 semester credit.

#### 299 INDEPENDENT STUDY

Staff

Content: Opportunities for well-prepared students to design and pursue a substantive course of independent learning. Details determined by the student and supervising instructor.

Prerequisite: Consent of instructor. Taught: Annually, 1-4 semester credits.

## 400 SENIOR THESIS IN EAST ASIAN STUDIES

Staff

Content: Advanced research and independent work, under guidance of faculty supervisor(s), on a topic previously explored in East Asian studies. Production of a carefully researched and reasoned thesis; distribution to convener, faculty supervisor(s), and other class members for assessment. Oral presentation of thesis; written and verbal comments from convener, faculty supervisor(s), and other students. Substantive employment of Chinese or Japanese language in research—including interviews, audiovisual materials, printed material strongly recommended. When possible, preliminary research conducted on an overseas studies program.

Prerequisite: East Asian Studies 100, two courses in the student's proposed concentration, two years of Chinese or Japanese, and senior standing, or consent of convener.

Taught: Annually, 2 semester credits per semester, total of 4 semester credits with grade deferred until completion of second semester.

## 444 PRACTICUM

Staff

Content: Same as East Asian Studies 244, but requiring more advanced work, as approved by supervising faculty.

Prerequisite: Junior standing and consent of instructor. Taught: Annually, 1-4 semester credits, credit-no credit.

## 499 INDEPENDENT STUDY

Staff

Content: Same as East Asian Studies 299, but requiring more advanced work.

Prerequisite: Junior standing and consent of instructor.

Taught: Annually, 1-4 semester credits.

# **Economics**

CHAIR: EBAN S. GOODSTEIN

The Department of Economics offers courses designed to help students understand and evaluate the ways in which human societies organize work, production, and the distribution of income. The department emphasizes the study of contemporary capitalism and the role of markets and government in

A sound understanding of economics is important for those pursuing careers in business, law, government, or international affairs, as well as economics. Economics courses at Lewis & Clark emphasize both theory and application. Within the major, students may declare a concentration in one of four specialty areas, described below.

## THE MAJOR PROGRAM

The core curriculum begins with the introductory Principles of Economics course (Economics 100). Students are then encouraged to explore either the lower-division (200-level) electives or the other required 100- and 200-level core courses (intermediate microeconomics, intermediate macroeconomics, and statistics). Ideally, students interested in majoring in economics will have completed the lower-division core courses and declared their major by the end of the sophomore year. Students also have the option, upon completion of a specified set of electives, of earning a concentration in one of the following subfields of economics: international, management, public policy, or theory. The capstone experience for the economics major is the senior seminar in which each student develops an original senior thesis. Students are strongly advised to work closely with members of the economics faculty to plan a program of study tailored to their individual interests.

## MAJOR REQUIREMENTS

- 1) A minimum of 44 semester credits, distributed among departmental core courses (Economics 100, 103, 291, 292, 433), and at least 24 semester credits of economics electives. If a student selects a concentration rather than general economics, 4 semester credits may be taken outside of the department, as noted below. At least 8 semester credits of electives must be selected from within department offerings at the 300 or 400 level.
- 2) Mathematics 131 (Calculus I).
- **3)** GPA of 2.000 or higher in courses applied to the major.

Students intending to pursue graduate studies in economics or careers as research economists are strongly encouraged to take Economics 303 and Economics 434, as well as additional mathematics courses, particularly calculus, linear algebra, differential equations, and statistics.

#### AREAS OF CONCENTRATION

Students may choose between a degree in general economics (with no concentration), or a degree with a concentration in one of the following fields: international, management, public policy, or theory. Students choosing general economics must select all 24 of their elective credits from courses offered within the economics department. To qualify for a concentration, the student must, in addition to satisfying the requirements for the major, take four of their six elective courses (16 of 24 elective credits) in the area of their concentration, which may include one course from outside the economics department.

### General

All 24 elective credits from within the economics department International

At least 12 of 24 elective credits from:

Economics

232 Economic Development

255 Economic History: Preindustrial Europe

256 Economic History: Industrial Revolution

280 Political Economy of Japan

295 Political Economy of South Korea

314 International Economics

No more than 4 of 24 elective credits from:

International Affairs

318 Multinational Corporations

340 International Political Economy

341 Advanced Industrial Economies

Sociology/Anthropology

350 Global Inequality

## Management

At least 12 of 24 elective credits from:

**Economics** 

210 Financial Analysis

220 Money and Banking

244 Practicum

319 Industrial Organization

321 Microcomputer Applications in Business

323 Accounting for Financial and Managerial Decisions

342 Management and Organization

358 Corporate Finance

440 Managerial Finance

444 Practicum

No more than 4 of 24 elective credits from:

Communication

310 Communication and Conflict

320 Organizational Communication

Sociology/Anthropology

221 Sociology of Work, Leisure, and Consumption

370 American Advertising and the Science of Signs

## Public Policy

At least 12 of 24 elective credits from:

Economics

220 Money and Banking

240 Political Economy of Race, Class, and Gender

244 Practicum

250 Radical Political Economics

260 Environmental and Natural Resource Economics

332 Urban Economics

335 Labor Economics

365 Public Economics

444 Practicum

No more than 4 of 24 elective credits from:

Communication

460 Communication Technology and Society

Political Science

204 Urban Politics

205 State Politics

275 Gender and Politics

307 Government and the Economy

330 Natural Resource Politics

## Theory

At least 12 of 24 elective credits from:

Economics

- 240 Political Economy of Race, Class, and Gender
- 250 Radical Political Economics
- 303 Econometrics
- 342 Management and Organization
- 430 History of Economic Thought
- 434 Mathematical Economics
- 491 Advanced Macroeconomics
- 492 Advanced Microeconomics

No more than 4 of 24 elective credits from:

Mathematics

- 132 Calculus II
- 215 Discrete Mathematics
- 225 Linear Algebra
- 235 Differential Equations

Philosophy

202 Philosophy of Science

## MINOR REQUIREMENTS

A minimum of 24 semester credits distributed as follows:

- 1) Economics 100, 103, 291, 292.
- 2) Eight additional semester credits, at least 4 semester credits at the 300 level or above, chosen from Economics 220, 232, 240, 250, 255, 256, 260, 280, 295, 303, 314, 319, 332, 335, 342, 365, 430, 434, 491, 492.
- **3)** GPA of 2.000 or higher in courses applied to the minor.

Note: Students seeking an economics minor must take three courses (at least 12 semester credits) that are discrete to the minor (not used in any other set of major or minor requirements).

#### Honors

The department grants honors on graduation to economics majors who: 1) Complete one of the following four courses with a minimum grade of B: Economics 430, 434, 491, 492.

- 2) Complete Economics 303 with a minimum grade of B.
- **3)** Attain a GPA of 3.500 or higher in all economics courses completed.
- **4)** Write an honors-quality senior thesis.

#### RESOURCES FOR NONMAJORS

Principles of Economics (Economics 100) is an introductory survey course for all students. It explains how a market system organizes the production and distribution of goods and services; what forces shape the overall level of employment, income, and prices in the United States; and how economic policy can be used to achieve the goals the public wants to reach.

Statistics (Economics 103) introduces students to the principles of statistical reasoning and their application to the social sciences. In particular, students learn methods for describing characteristics of large groups of individuals, and for empirically testing differences relevant to economic and

Financial Analysis (Economics 210) is an introductory course on the use of accounting information for financial decision making. The focus is on the understanding and use of financial statements.

Many students majoring in other disciplines take more advanced courses in the economics curriculum; these all have Economics 100 as a prerequisite. Courses designed for exploring more general interests include Money and

Banking (220); Economic Development (232); Political Economy of Race, Class, and Gender (240); Radical Political Economics (250); Economic History: Preindustrial Europe (255); Economic History: Industrial Revolution (256); Environmental and Natural Resource Economics (260); Political Economy of Japan (280); and Political Economy of South Korea (295).

#### FACULTY

Clifford T. Bekar, assistant professor. Economic history, industrial organization, management and organization.

Eban S. Goodstein, professor. Environmental and natural resource economics, microeconomic theory, public economics.

James H. Grant, associate professor. Microeconomics, econometrics, labor economics, mathematical economics.

Martin Hart-Landsberg, professor. Political economy, economic development, international economics.

Arthur O'Sullivan, Dr. Robert B. Pamplin Jr. Professor of Economics. Urban economics, regional economics, microeconomic theory.

Harold J. Schleef, associate professor. Finance, statistics, microcomputer applications, competitive strategies.

Phillip T. Senatra, associate professor emeritus. Financial analysis, managerial analysis, consumer decisions.

#### VISITING FACULTY

Clarisse Messemer, visiting assistant professor. Macroeconomics, econometrics.

## 100 Principles of Economics

Bekar, Goodstein, Grant, Hart-Landsberg, O'Sullivan

Content: Introduction to the study of market economies. Microeconomics including supply and demand, production theory, market structure.

Macroeconomics including economic growth, inflation and unemployment, money and banking, monetary and fiscal policy. Government regulation and policy. Discrimination and poverty, imperfect competition, environmental problems, international competitiveness.

Prerequisite: Mathematics 055 or equivalent. Taught: Each semester, 4 semester credits.

#### 103 STATISTICS

Grant, Schleef

Content: Theory and applications of statistics and probability used in the study of economics. Descriptive statistics, probability, random variables and their distributions, statistical inference. Applications of statistical inference ranging from estimating the mean from a univariate population to multiple regression analysis.

Prerequisite: Mathematics 055 or equivalent. Taught: Each semester, 4 semester credits.

#### 210 FINANCIAL ANALYSIS

Senatra

Content: The use of accounting information for financial decision making. Understanding and use of financial statements as a primary source of accounting information. Reading and analyzing financial statements of domestic and international firms.

Prerequisite: None.

Taught: Each semester, 4 semester credits.

## 212 ECONOMICS AND CONSUMER DECISIONS

#### Senatra

Content: Introduction to decision-making tools for analyzing individual consumer decisions including strategies for investments in financial instruments, cash and credit management. Preparation and analysis of personal financial statements, budgeting, tax determination and planning strategies.

Prerequisite: None.

Taught: Every third year, 4 semester credits.

## 220 MONEY AND BANKING

Messemer

Content: The operation of the financial sector and its interrelationship with the productive sector. The central institutions of money and banks; the Federal Reserve System and its operation of monetary policy. Keynesian, post-Keynesian, and monetarist theories and their policy implications.

Prerequisite: Economics 100.

Taught: Alternate years, 4 semester credits.

## 232 ECONOMIC DEVELOPMENT

Hart-Landsberg

Content: Problems of less-developed countries and proposed solutions. Extent and nature of international poverty and inequality, national and international causes of underdevelopment, strategies for development.

Prerequisite: Economics 100.

Taught: Annually, 4 semester credits.

## 240 POLITICAL ECONOMY OF RACE, CLASS, AND GENDER

Staff

Content: Discussion of the social construction of race, class, and gender. Examination of the economic status of women and racial minorities in the United States. Presentation of the liberal, radical, and conservative explanations for economic outcomes. Methodological challenge to Cartesian scientific analysis as a basis of economic inquiry.

Prerequisite: Economics 100.

Taught: Alternate years, 4 semester credits.

#### 244 Practicum

Content: Opportunities for well-prepared students to put academic concepts and techniques to work in the private or public sector. Specific activities vary; usually involve work with a public agency or private group.

Prerequisite: Economics 100 or 210 and consent of instructor.

Taught: Annually, 2-4 semester credits.

## 250 RADICAL POLITICAL ECONOMICS

Hart-Landsberg

Content: Critical connections among different economic structures and dynamics, on one hand, and political strategies and struggles for change, on the other. Economic crisis theory, theories of the state, class and class consciousness, labor, and social movement struggles.

Prerequisite: Economics 100.

Taught: Alternate years, 4 semester credits.

## 255 ECONOMIC HISTORY: PREINDUSTRIAL EUROPE

Bekar

Content: Economic growth and development of Northern Europe in a historical context, A.D. 1000 to the Industrial Revolution. Applied economic theory, using the tools of basic micro- and macroeconomics to explore

historical events in terms of supply and demand, labor theory, monetary theory, trade theory, property rights, and so on. Techniques used by economic historians, and much interesting historical detail.

Prerequisite: Economics 100.

Taught: Alternate years, 4 semester credits.

## 256 ECONOMIC HISTORY: INDUSTRIAL REVOLUTION

Bekar

Content: The industrialization of Europe and North America. Development of theories based on the experience of Britain—the first industrial nation—using other countries as test cases for those theories. Examining why some countries industrialized while others did not, what are the key factors in industrialization, what determines the speed of industrialization.

Prerequisite: Economics 100.

Taught: Alternate years, 4 semester credits.

## 260 Environmental and Natural Resource Economics

Goodstein

Content: An analysis of environmental and resource problems ranging from hazardous waste disposal to air pollution, species extinction to global warming, from an economic perspective. The property-rights basis of pollution problems, environmental ethics, benefit-cost analysis, regulatory policy, clean technology, population growth and consumption, sustainable development.

Prerequisite: Economics 100.

Taught: Annually, 4 semester credits.

## 280 POLITICAL ECONOMY OF JAPAN

Hart-Landsberg

Content: Causes and (national and regional) consequences of Japan's economic development. Political, social, and cultural underpinnings of Japanese capitalism; state policies, state-corporate relations, and labor relations system; social and environmental problems and responses; political and economic relations with East Asia.

Prerequisite: Economics 100.

Taught: Alternate years, 4 semester credits.

## 291 Intermediate Macroeconomic Theory

Messemer

Content: Theories and policies of classical, Keynesian, new classical, and new Keynesian economists; national income accounting; IS-LM analysis; aggregate supply and demand; money, interest rates, and investment; government spending and taxation; fiscal and monetary policy.

Prerequisite: Economics 100.

Taught: Each semester, 4 semester credits.

#### 292 Intermediate Microeconomic Theory

Goodstein, Grant, O'Sullivan

Content: An analysis of markets and the potential sources of market failure. Demand theory, production theory, market structure, factor pricing, general equilibrium. Principles governing production, exchange, and consumption among individual consumers and firms.

Prerequisite: Economics 100.

Taught: Each semester, 4 semester credits.

## 295 POLITICAL ECONOMY OF SOUTH KOREA

## Hart-Landsberg

Content: Causes and consequences of South Korea's rapid economic growth. State and society in traditional Korea; socioeconomic legacies of colonial Korea; division of the peninsula following Japan's defeat; development and performance of the South Korean political economy (highlighting the role of the state, foreign forces, and export-led development strategy); current political and economic trends.

Prerequisite: Economics 100.

Taught: Every third year, 4 semester credits.

## 299 INDEPENDENT STUDY

Staff

Content: Opportunities for well-prepared students to design and pursue a substantive course of independent learning. Details determined by the student and the supervising instructor.

Prerequisite: Consent of department. Taught: Annually, 4 semester credits.

#### 303 ECONOMETRICS

Grant

Content: Construction and estimation of empirical models of the economy; using empirical models to test economic hypotheses. Multiple regression analysis, residual analysis, analysis of variance.

Prerequisite: Economics 103. Economics 291 or 292. Mathematics 131.

Taught: Annually, 4 semester credits.

## 314 International Economics

Hart-Landsberg

Content: Theoretical and practical problems of international economics; ideas and policies governing international trade and finance. Trade theory, foreign exchange markets, balance of payments, transnational corporate activity.

Prerequisite: Economics 291 or 292. Taught: Annually, 4 semester credits.

#### 319 Industrial Organization

Bekar, Goodstein

Content: Systematic imperfections in the market economy and in the laws and analyses attempting to remedy these imperfections. Economic theory of perfect and imperfect competition; measures and evidence indicating imperfections; legal background and administrative pursuit of antitrust policy in the United States and selected other economies.

Prerequisite: Economics 292.

Taught: Alternate years, 4 semester credits.

## 321 MICROCOMPUTER APPLICATIONS IN BUSINESS

Schleef

Content: Microcomputer software models with electronic spreadsheets and data management systems. Use of these systems in business applications: accounting, finance, marketing, operations management, personnel, general management.

Prerequisite: Junior standing.

Taught: Annually, 4 semester credits.

## 323 ACCOUNTING FOR FINANCIAL AND MANAGERIAL DECISIONS

#### Senatra

Content: How financial accounting information is used by decision makers outside a firm to analyze the firm's performance. How managers use information to make decisions about planning, operating, and control in the firm. Emphasis on case analysis.

Prerequisite: Economics 210.

Taught: Annually, 4 semester credits.

## 332 Urban Economics

#### O'Sullivan

Content: Economic aspects of urban areas. Why cities exist and how they interact within a regional economy; the pattern of land use in modern metropolitan areas; the economic forces behind urban problems such as poverty, crime, congestion, and sprawl; evaluation of the merits of alternative policy responses to urban problems.

Prerequisite: Economics 100.

Taught: Alternate years, 4 semester credits.

#### 335 LABOR ECONOMICS

### Grant

Content: The operation and political economy of labor markets: supply of and demand for labor, wage determination under various market structures, discrimination, the role of trade unions, the nature of work.

Prerequisite: Economics 292.

Taught: Alternate years, 4 semester credits.

#### 342 MANAGEMENT AND ORGANIZATION

#### Bekar

Content: Economic principles underlying the organization of a business, governmental, or nonprofit organization. Case studies of business decisionmaking used to illustrate general theoretical principles. Agency theory, transactions cost analysis, decision-making and rational choice theory, corporate governance/structure.

Prerequisite: Economics 292. Mathematics 131.

Taught: Annually, 4 semester credits.

## 358 CORPORATE FINANCE

## Schleef

Content: The role of the financial officer in fulfilling the financial goals of the firm—subject to constraints imposed by technology, market forces, and society. Short-term financial planning, selection of capital investments, capital structure planning, cost of funds to the firm. Focus on financial concepts of valuation, investment decisions, financing decisions.

Prerequisite: Economics 103, 292. Taught: Annually, 4 semester credits.

## **365 Public Economics**

Goodstein, O'Sullivan

Content: Examination of the role of government in a primarily market economy. Microeconomic issues: the provision of public goods; externality problems; the incidence, efficiency, and broader impacts of taxation policy; different approaches to defining fairness in income distribution; economic theories of public choice. Pressing current public-policy issues including health care and education policy, welfare reform, campaign finance, the social security system, defense spending.

Prerequisite: Economics 292 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## **426 COMPETITIVE STRATEGIES**

Schleef

Content: Factors influencing industry structure and subsequent forces determining the nature and intensity of competitive rivalry. Interplay of economic and environmental variables shaping options for competitive strategy choices of the firm. The role of public policy, technology, and international rivalry in reshaping the nature of competition and altering the firm's strategic options. Economic analysis considered; focus on managerial

Prerequisite: Economics 342, 358. Taught: Annually, 4 semester credits.

## 430 HISTORY OF ECONOMIC THOUGHT

Goodstein

Content: Economic theory and analyses: how events suggested new theory and how new theoretical insights affected economic policies and trends. Economic doctrine as viewed in the Bible and by Plato; Aristotle; St. Thomas Aquinas; mercantilists; physiocrats; classical economists; Karl Marx; the German (historical), Austrian (marginalist), and Lausanne (general equilibrium) schools; neoclassicists; Keynesians.

Prerequisite: Economics 291, 292; junior standing. Taught: Every third year, 4 semester credits.

#### 433 SENIOR SEMINAR

Bekar, Goodstein, Grant, Hart-Landsberg, O'Sullivan

Content: Senior thesis project. Students formulate a hypothesis relating to an aspect of the economy of interest to them, devise a method for testing it, carry out the necessary research, write up the results, and make a public oral presentation of results.

Prerequisite: Economics 103, 291, 292. Economics 303 (may be taken concurrently). Senior standing.

Taught: Annually, 2 semester credits per term, total of 4 semester credits deferred until completion of second semester.

## 434 MATHEMATICAL ECONOMICS

Grant

Content: Mathematical models of economic behavior. Mathematics of microeconomic theory and macroeconomic theory, economic optimization, equilibrium and disequilibrium analysis, probability models, growth theory, dynamic economic modeling.

Prerequisite: Economics 103. Economics 291 or 292. Mathematics 131. Taught: Alternate years, 4 semester credits.

#### 440 Managerial Finance

Schleef

Content: Analytical skills necessary to solve investment and financing problems in the firm. Methods of analyzing capital budgeting decisions including discounted cash flow, risk-adjusted present value, internal rate of return. How the firm finances its investments. Importance of the firm's capital structure and the financial environment in which it operates.

Prerequisite: Economics 358.

Taught: Alternate years, 4 semester credits.

#### 444 Practicum

Staff

Content: Same as Economics 244 but requiring more advanced work. Prerequisite: Economics 103, 291, 292, and consent of instructor.

Taught: Each semester, 2-4 semester credits.

### 491 ADVANCED MACROECONOMICS

Messemer

Content: Topics beyond intermediate macroeconomics including alternate theories of consumption and investment, macroeconomic forecasting, the role of expectations, problems with macro measurements.

Prerequisite: Economics 291.

Taught: Alternate years, 4 semester credits.

## 492 ADVANCED MICROECONOMICS

Hart-Landsberg

Content: Microeconomic strengths and weaknesses of market-directed economic activity. Industrial policy, discrimination in labor markets, impact and role of trade unions, welfare economics.

Prerequisite: Economics 292.

Taught: Alternate years, 4 semester credits.

## **499 INDEPENDENT STUDY**

Staff

Content: Same as Economics 299 but requiring more advanced work.

Prerequisite: Consent of department. Taught: Annually, 4 semester credits.

## Education

## CHAIR: NANCY G. NAGEL

The Department of Teacher Education, located in the Graduate School of Education, offers several courses for undergraduates who wish to explore teaching as a career or who wish to tutor in public school classrooms and participate in college-based seminars. Students interested in a teaching career are encouraged to choose an undergraduate major related to the subjects they wish to teach, and apply to the graduate teacher education program for their teaching licensure program. Prospective elementary school teachers should take courses from many disciplines, including mathematics and science.

Lewis & Clark seniors should apply no later than early January to the preservice master of arts in teaching program, a 12- to 14-month postgraduate course of study leading to an Initial Oregon Teaching License and the M.A.T. degree. Teacher Education offers two programs for the Oregon Initial Teaching License. The Early Childhood/Elementary Intern program prepares students to teach children from age 3 through grade 8 in an elementary school or in grade 5 or 6 in a self-contained classroom in a middle school. The Middle Level/High School Intern program prepares candidates to teach students in specific subjects in middle, junior high, and high schools. Both programs are approved under Oregon's standards for fifth-year programs. Lewis & Clark graduates have been successful in obtaining licensure to teach in other states.

To be considered for admission to the M.A.T. program, an applicant must have:

- 1) A cumulative GPA of 2.750 or higher.
- 2) Experience with youth, preferably in classroom settings.
- 3) Three letters of recommendation, including at least one from a person who has observed the applicant's work with youth.
- 4) Passing scores on state-required tests. Candidates should contact the

teacher education program at 503-768-6100 for current information and testing dates. Application must be submitted by the first Monday in January of the senior year. For early admission consideration, application must be received by the first Monday in November.

#### FACILITIES

All of Lewis & Clark's Teacher Education programs, based on the College's south campus, draw extensively upon public and private school personnel, facilities, and resources for field-based practica.

#### FACULTY

Charles R. Ault Jr., professor. Science education.

Janet Bixby, assistant professor. History, social studies, curriculum.

Kelly Gaddis, assistant professor. Mathematics education.

Dale W. Holloway, coordinator of student support services. Students with special needs.

Ruth Shagoury Hubbard, Mary Stuart Rogers Professor of Education. Language arts education, reading and literacy, teacher research.

Vernon Jones, professor. Adolescent psychology, classroom management, educating students with special needs.

Allen Koshewa, assistant professor. Elementary education, language and literacy. Nancy G. Nagel, chair and professor. Curriculum, early childhood and elementary education, elementary mathematics instruction.

Glennellen Pace, associate professor. Language arts, children's literature.

Gregory A. Smith, professor. Educational policy, curriculum and instruction, place-based education, school-community relations.

Maria Timmons Flores, assistant professor. Adolescent development, ESOL/ bilingual education, multicultural education.

Zaher Wahab, professor. Foundations of education; race, culture, and power; education reform.

Carol S. Witherell, professor. Moral development and ethics in education, child development.

## VISITING FACULTY

Kimberly Campbell, visiting assistant professor. Literature and secondary

Sherri Carreker, visiting assistant professor. Inservice education and licensure. Cynthia Cosgrave, visiting assistant professor. ESOL/bilingual education. Esperanza De La Vega, visiting assistant professor. ESOL/bilingual education. Melinda Dyer, visiting assistant professor. Elementary education, math and science.

Lynn Reer, visiting assistant professor. ESOL/bilingual education, multicultural education.

## 201 Education in Modern Society

Staff

Content: Critical issues in education and student experience in schools as observers and participants. Readings and reflective discussion about social and political forces that shape schooling. Students meet in seminars to share experiences in schools and participate in activities that advance understanding of the complexity and art of teaching. Practicum placements arranged through Migrant Education in Portland Public Schools; four to six hours per week in addition to class time.

Prerequisite: None.

Taught: Each semester, 3 semester credits.

#### 244 Practicum in Education

Staff

Content: Development and execution of extensive projects relating to education issues in organizational settings. Placement in community-based social and educational agencies.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

# 275 DEVELOPING THE POTENTIAL OF THE LEARNING-DISABLED CHILD

Holloway

Content: The special needs of learning-disabled children and youth (K-12). Teams of two or three students develop and direct activities to teach educational and social skills to age-grouped learning-disabled children in the community. Students meet in the seminar two hours a week, with leadership team once a week, with the children approximately every three weeks on Saturday afternoons.

Prerequisite: Consent of instructor.

Taught: Each semester, 2 semester credits. May be taken twice for credit.

## 299 INDEPENDENT STUDY

Staff

Content: Design and pursuit of substantive independent learning, in

consultation with a faculty supervisor. Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

## 444 PRACTICUM IN EDUCATION

Staff

Content: Same as 244 but requiring more advanced work.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

#### 446 EDUCATION INTERNSHIP

Staff

Content: In-depth independent study continuing practicum field experience begun in Education 201. Educational theories of John Dewey, the "father of progressive education." Current educational theory and reform legislation. Reflection on students' emerging beliefs about schools and teaching. Research project employing practical applications of theory and personal pedagogy. Students required to complete 30 hours of practicum experience and present the research project to colleagues at end of semester. Weekly seminar meetings; written assignments based on readings and practicum activities.

Prerequisite: Education 201. Sophomore, junior, or senior standing.

Taught: Annually, 3 semester credits.

## 450 PHILOSOPHY AND PRACTICE OF ENVIRONMENTAL/ECOLOGICAL **EDUCATION**

Smith

Content: Overview of current theories about the role of education in developing ecologically literate citizens. The origins of environmental education; consideration of "ecological" education. Focus on relationships between human beings and the natural world, and among human beings. Cultural factors that may bear on the causes and solutions of environmental problems. Students complete a 36- to 40-hour practicum in the classroom of a Portland-area teacher who incorporates environmental or place-based studies as a central part of his or her curriculum.

Prerequisite: Education 201. Sophomore, junior, or senior standing.

Taught: Alternate years, 3 semester credits.

## 470 RACE, CULTURE, AND POWER

Wahab

Content: Exploration of the concepts of race, culture, and power: Are they simple, separate, and natural facts of life in a heterogeneous, rational, achievement-oriented, and egalitarian society, or are they interrelated social and ideological constructs with profound implications for one's status, wellbeing, access, and legitimacy in a diverse and stratified world? Students examine the serious and real tensions in U.S. society, where a substantial percentage of school-age children are minorities.

Prerequisite: Consent of instructor.

Taught: Annually, 4 semester credits.

# 475 SEMINAR IN MORAL DEVELOPMENT, ETHICS, AND EDUCATION

Witherell

Content: Examination of problems and ways of knowing about the moral and ethical realm in relation to educational thought and practice. Exploration of relationships between moral reasoning and behavior, ethical theories, emotivism, relativism, universalism, indoctrination, and morality as a social or individual phenomenon. Gender issues. Fictional narratives, autobiographies by individuals from different backgrounds, case studies.

Prerequisite: Consent of instructor.

Taught: Alternate years, 4 semester credits.

## 499 INDEPENDENT RESEARCH

Staff

Content: Same as Education 299 but requiring more advanced work.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

# Engineering

## COORDINATOR: STEPHEN L. TUFTE

See also Mathematical Sciences, Chemistry, and Physics.

For students seeking a traditional engineering background leading to certification, the College has joined several nationally recognized engineering schools to offer a cooperative program that provides students with the advantages of a liberal arts education as a complement to rigorous studies in engineering. This engineering program, commonly referred to as the "3-2 Program," enables a student to complete three years of study at Lewis & Clark, followed by two years at the engineering school. The student earns a degree from each school. Lewis & Clark cooperates in this program with four institutions: Columbia University in New York, Washington University in St. Louis, the University of Southern California in Los Angeles, and the OGI School of Science & Engineering in Beaverton, Oregon.

In the 3-2 programs with Columbia, Washington, and Southern California, the student earns one bachelor's degree from Lewis & Clark and one from the engineering school. Some of these schools also provide 4-2 options in which the student may complete a four-year degree at Lewis & Clark and then enter a two-year program toward either the bachelor's or the master's degree in engineering. OGI offers graduate degrees in select fields. Lewis & Clark's 3-2 agreement with OGI provides for a bachelor-master program in computer science and engineering.

The existence of a formal 3-2 or 4-2 agreement between Lewis & Clark and these four institutions essentially assures students admission to engineering schools upon completing a required set of courses with a satisfactory GPA, typically 3.000, and the recommendation of the Lewis & Clark faculty. In addition, Lewis & Clark students sometimes enroll in engineering schools at other institutions upon graduation or by transfer. The preengineering adviser (the coordinator of the engineering program) works with students individually, helping them evaluate the relative merits of various options. Students are kept informed about the program through regular mailings and annual visits from representatives of the engineering schools.

Students interested in these programs should meet with the preengineering adviser as soon as they enroll at Lewis & Clark. Preengineering students generally take mathematics (through differential equations), chemistry, physics, and computer science. Students are strongly encouraged to take full advantage of Lewis & Clark's diverse course offerings in the arts, humanities, and social sciences during their studies at the College.

Note: Because the College does not offer a "preengineering" major, students must choose a standard Lewis & Clark major such as mathematics, chemistry, physics, or economics. They must plan a course of study that will enable them to meet the requirements of the engineering school and complete all but two or three courses of those required for the Lewis & Clark major. Preengineering students must also meet all of Lewis & Clark's General Education requirements.

Students in the 3-2 program must spend a minimum of four full semesters at Lewis & Clark (excluding summer session) and complete 93 semester credits before proceeding to the engineering school. For these students, the College waives its senior-year academic residency requirement, and the chair of the student's major department evaluates courses at the engineering school as substitutes for completing the student's Lewis & Clark major requirements.

## PROGRAM REQUIREMENTS

Although students may graduate with any Lewis & Clark major, they should plan their schedules so as to complete the following courses by the end of the junior year. Since each school has different requirements, students should consult with the preengineering adviser as early as possible to plan the most effective and profitable course of study at Lewis & Clark.

- 1) Chemistry 110 and 120, or 115 and 135 (some programs require only one semester of chemistry).
- **2)** Computer Science 171.
- 3) Mathematics 131, 132, 233, 235. Mathematics 225 is recommended.
- **4)** Physics 141, 142 or Physics 151, 152, 251, 252. Physics 201 is recommended.
- **5)** Recommended for chemical engineering programs: Chemistry 210, 220, 310, 320.
- **6)** Recommended for computer science programs: Computer Science 172, 373, 383; Mathematics 215.
- 7) Recommended for electrical and electronic engineering programs: Physics 331, 332.
- 8) All of the programs require four or five courses in the arts, humanities, and social sciences. Washington University requires that 8 semester credits of those courses be in one department, including one course at the junior or senior level.
- 9) Columbia University requires one course in economics.

# English

#### CHAIR: LYELL ASHER

The Department of English acquaints students with a wide range of English and American literature from a variety of perspectives. The department teaches students to read literary texts and to write effectively and persuasively about literature and its relation to human experience. English courses share with the College generally the goal of helping students read, think, speak, and write critically.

The department has a strong commitment to the teaching of writing in its literature courses. In addition, courses in creative writing provide an opportunity for majors interested in writing poetry and fiction to develop their skills to an advanced level. Some of the creative writing courses also satisfy the College's Creative Arts requirement.

## THE MAJOR PROGRAM

Students are encouraged to declare the major in the sophomore year. The department requires that students interested in an English major take the twosemester sequence, Major Periods and Issues, in the sophomore year if possible, and no later than the junior year. During this course and in close consultation with an adviser, the students should chart a program of courses that will satisfy major requirements.

During their senior year, usually in fall semester, majors take the Senior Seminar. Though seminars vary in focus and content, each addresses its subject in the context of current critical discourse and requires students to write a long research-based paper. Each seminar gives students the experience of engaging in advanced research, developing independent critical perspectives, and sharing ideas with a small number of students in a seminar setting.

Within the major itself, students may pattern their program in a number of ways. A concentration in writing and literature incorporates both creative writing courses and literature courses appropriate to a particular student's interest. A concentration in British and American literature combines courses calculated to strengthen the student's understanding of literary history and the major writers in British and American literature. These concentrations indicate two of the emphases possible within the English curriculum, though they are not intended as binding tracks. On the contrary, students are urged to work out a major concentration that best suits their individual interests.

## MAJOR REQUIREMENTS

A minimum of 40 semester credits (10 courses), including:

- 1) English 205, 206.
- 2) At least four courses at the 300 level or higher, including two courses in English literature before 1800.
- 3) English 450, to be taken in the senior year.
- 4) Three elective courses from any English department offering (excluding 244, 444 and 299, 499). One elective may be fulfilled by a course chosen from Chinese 230; French 230; German 230; Japanese 230; Religious Studies 222, 223; Russian 230; Spanish 230; Theatre 275, 281, 282, 283.

### MINOR REQUIREMENTS

A minimum of 20 semester credits (five courses), including:

- 1) English 205 or 206.
- 2) One 300-level course in English or American literature.
- 3) Three elective courses at the 200 level or higher, including creative writing courses.

#### **Honors**

Writing an honors thesis enables a student to work closely with one or two faculty members on a significant piece of original work, to synthesize a

particular program of study, and to be recognized for this accomplishment. During the summer preceding the student's senior year, faculty nominate students for honors on the basis of exceptional work in the major; a GPA of 3.500 in the major is usually required. Students who accept nomination may undertake an honors thesis by expanding a senior seminar paper under the supervision of the seminar professor. The completed project is evaluated by a three-member faculty committee including the student's faculty supervisor. Projects deemed worthy earn the award of honors on graduation.

## RESOURCES FOR NONMAJORS

All of the department's course offerings are open to nonmajors except the Senior Seminar. Preference is given to majors and minors for enrollment in the Major Periods and Issues sequence (English 205, 206).

Lyell Asher, associate professor. Renaissance English literature, Shakespeare. Dorothy W. Berkson, professor. Early and 19th-century American literature, Victorian literature, women and literature.

John F. Callahan, Morgan S. Odell Professor of Humanities. Post-Civil War and 20th-century American literature, African-American literature.

Anne Dawid, professor. Fiction writing, 20th-century literature.

Kurt Fosso, associate professor. British romanticism, critical theory.

Michaela Paasche Grudin, associate professor. Chaucer and medieval literature. Susan Kirschner, senior lecturer. Prose writing.

Will Pritchard, assistant professor. Restoration and 18th-century literature and culture.

Rishona Zimring, associate professor. Modern British literature, late Victorian literature, postcolonial literature.

## ADJUNCT FACULTY

Kristi Williams, instructor. 19th- and 20th-century British literature.

## 100 Topics in Literature

Dawid, Fosso, Staff

Content: Emphasis on a particular theme or subgenre in literature to be chosen by the professor. Recents topics have included The Literature of Sport, Literature and the Environment, The Romance, and The Novella. Prerequisite: None.

Taught: Alternate years, 4 semester credits. May be taken twice for credit.

## 104 THE INTERNATIONAL SHORT STORY

Dawid

Content: Short fiction from the Americas, Britain, Europe, Africa, and beyond, with particular attention to the ways in which the short story form, though marked by economy and concision, can represent some of the more profound and expansive aspects of human experience such as love, war, and death. Writers may include Tolstoy, Kafka, Chekhov, Garcia-Marquez, Joyce, Dinesen, Borges, Borowski, Welty, Valenzuela, Achebe, Calvino, Gordimer, Kawabata, Mafouz, Singer, Faulkner, Tutuola.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

### 105 THE ART OF THE NOVEL

Asher

Content: A study of major works in English, American, and European fiction,

from the 17th century to the present. Goals include increasing awareness of the particular kinds of knowledge and perception that the novel makes available; considering the variety of ways in which novels braid moral and aesthetic concerns; understanding how novels respond both to everyday human experience and to previous literary history; and heightening appreciation for the range of pleasures that the novel can afford. Writers may include Cervantes, Sterne, Austen, Flaubert, Kafka, Woolf, Nabokov, Kundera, Pynchon.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 108 Prose Writing: Creative Nonfiction

Kirschner

Content: Writing in the genre known variously as the personal essay or narrative, memoir, autobiography, to introduce students to traditional and contemporary voices in this genre. Daily writing and weekly reading of exemplars such as Seneca, Plutarch, Montaigne, Hazlitt, Woolf, Soyinka, Baldwin, Walker, Hampl, Dillard, Selzer, Lopez.

Prerequisite: None.

Taught: Annually, 4 semester hours.

## 200 Introduction to the Short Story

Dawid

Content: Form and structure and their relationship to content. Extensive reading: traditional, contemporary, experimental. Short papers (critical and/or creative); daily logs; final project in which the student presents to the class the work of a published author of his or her choice and writes a full-length critical paper.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 201 Introduction to Poetry and Poetry Writing

Content: Elements of poetry such as imagery, rhythm, tone. Practice in the craft. Frequent references to earlier poets.

Prerequisite: None.

Taught: Annually, 4 semester credits, credit—no credit.

## 205, 206 Major Periods and Issues in English and American LITERATURE

Asher, Callahan, Dawid, Fosso, Grudin, Zimring

Content: Introduction to ways of reading and writing about literature; historical development of English and American literature. Fall: Middle Ages to end of 17th century. Spring: Romantic period to middle of 20th century. Prerequisite: Sophomore standing. For English 206, completion of English 205 or consent of instructor.

Taught: Annually, 4 semester credits each. Enrollment preference given to English majors and minors.

#### 243 WOMEN WRITERS

Staff

Content: Varies according to instructor, usually focusing on the emergence of a distinct tradition of British and American literature by women, linked by

common themes and patterns of influence. The Brontes, Dickinson, McCullers, Morrison, O'Connor, Piercy, Rich, Rossetti, Walker, Woolf.

Prerequisite: None.

Taught: At least every other year, 4 semester credits.

#### 244 Practicum

Asher, Grudin, Zimring

Literary Review

Content: Production of a first-rate literary review. In weekly workshops, students gain some familiarity with all the processes involved (editorial, layout, printing, business, distribution) and intimate experience with at least one. Prerequisite: None.

Taught: Each semester, 1 semester credit. May be taken four times for credit. Peer Tutoring in Writing

Content: Designed for any student interested in learning theories and methods for teaching writing one-on-one; required of students interested in becoming tutors in the Writing Center. Social dimensions of a tutorial, including a Writing Center user's perceptions of good writing and the writing process, his or her perception of the role of the tutor, how all of these elements affect a writing conference. Rhetorical dimensions of writing, including strategies and techniques to help student writers solve their own problems.

Prerequisite: Consent of instructor. Taught: Annually, 2 semester credits.

## 250 Introduction to Shakespeare

Asher

Content: Plays representing the several types Shakespeare wrote—histories, comedies, tragedies, romances. Usually covers eight plays and selected sonnets and poems. May include class performance sessions, discussion of video and film. Summer course includes trip to the Oregon Shakespeare Festival.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 275 LITERATURE OF THE SEA

Staff

Content: Introduction to the uses of the sea and the symbol of the mariner in a variety of figurative renderings. How these representations reflect changing historical and cultural contexts such as aesthetic values, spiritual and moral perspectives, and developing maritime technologies.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 279 CLASSICAL BACKGROUNDS

Asher, Fosso, Grudin

Content: A study of epic, drama, and poetry from the Greek and Latin classics. Writers may include Homer, Hesiod, Aeschylus, Sophocles, Virgil, Horace, Ovid, and St. Augustine.

Prerequisite: None.

Taught: At least every other year, 4 semester credits.

## 280 THE MEDIEVAL WORLD

Grudin

Content: An introduction to the world of the Middle Ages in Europe and in England, and to the Arabic influences on this world. Exploration of the richness of the medieval experience through manuscripts, visual arts, music, architecture. Documented evidence of daily life in town and country. Hazm's The Ring of the Dove, Ladurie's Montaillou, The Song of Roland, Tristan and

Iseult, Lais of Marie de France, Dante's Divine Comedy, Boccaccio's Decameron, Chaucer's Canterbury Tales.

Prerequisite: None.

Taught: At least every other year, 4 semester credits.

## 298 THE LITERATURE AND HISTORY OF THE 1960s

Brown, Callahan

Content: An exploration of conflict and change in the American republic at large and in the republic of letters during the 1960s. Focus on representative literary works; primary documents such as the 1962 Port Huron Statement, Martin Luther King Jr.'s 1963 "I Have a Dream" speech, Eugene McCarthy's 1967 declaration of candidacy; and historical phenomena such as the Civil Rights Movement, the Vietnam War, and the political assassinations of 1963, 1965, and 1968. Poetry by Bly, Brooks, Ginsburg, Hayden, Harper, Knight, and Plath; fiction by writers such as Gaines, McPherson, Olsen, Roth, and Updike; and essays and addresses by writers such as Baldwin, Ellison, Herr, King, Malcom X, Mailer, Steinem, Alice Walker, and Tom Wolfe.

Prerequisite: Sophomore standing.

Taught: Once only (spring 2004), 4 semester credits.

## 298 SATIRE

Pritchard

Content: An examination of satiric works in many genres (poetry, fiction, drama, film) and from many periods (ancient Rome, 18th-century England, 20th-century United States). Also some theoretical works on satire. Possible authors: Horace, Juvenal, Petronius, Chaucer, Rabelais, Thomas More, Ben Jonson, John Gay, Jonathan Swift, Alexander Pope, Voltaire, Jane Austen, Mark Twain, G.B. Shaw, Aldous Huxley, Evelyn Waugh, Nathanael West, Ishmael Reed, Paul Beatty. Possible films: Sullivan's Travels, Dr. Strangelove, Network, Bowling for Columbine.

Prerequisite: Sophomore standing.

Taught: Once only (fall 2003), 4 semester credits.

## 299 INDEPENDENT STUDY

Staff

Content: Opportunities for well-prepared students to design and pursue a substantive course of independent learning. Details determined by the student and the supervising instructor.

Prerequisite: Consent of instructor. Taught: Annually, 1-4 semester credits.

## 300 Fiction Writing

Dawid

Content: Discussion and small-group workshop. Required reading aloud from an anthology, with student-led discussion of authors' texts. Daily exercises in various elements of short fiction, graduating to full-length stories; emphasis on revision. All students write evaluations of peers' work and participate in oral critique.

Prerequisite: Junior standing or consent of instructor. English 200 strongly recommended.

Taught: Annually, 4 semester credits.

## 301 POETRY WRITING

Staff

Content: Discussion of student work with occasional reference to work by earlier poets. Students develop skills as writers and readers of poetry.

Prerequisite: Junior standing or consent of instructor. Taught: Annually, 4 semester credits, credit—no credit.

## 310 THE MIDDLE ENGLISH PERIOD

Grudin

Content: The major genres of English literature from the 13th through the 15th century. Political, social, and historical contexts that shaped the lyric, drama, and narrative poetry of the period. Readings, all in Middle English, include Sir Gawain and the Green Knight, Pearl, Piers Plowman, selected mystery plays, lyrics, and Malory's Death of Arthur.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 311 LITERATURE OF THE ENGLISH RENAISSANCE

Asher

Content: Developments in poetry, fiction, and drama during the Elizabethan period and the 17th century. Genres such as the sonnet and sonnet sequences, the pastoral, heroic and Ovidian verse, satire; examples from non-Shakespearean dramatists, comedy, tragedy. May include Browne, Donne, Herbert, Jonson, Marlowe, Marvell, Milton, Raleigh, Sidney, Spenser, Surrey, Wyatt.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 313 18th-Century Literature

Pritchard

Content: Major trends in English literature during the 18th century from the Augustans through the Age of Sensibility. Traditional and new forms of literary representation as they developed in response to changing social, intellectual, and aesthetic contexts of emerging modern culture. May include Pope, Behn, Gay, Defoe, Swift, Fielding, Johnson, Boswell, Burney, Thomson, Gray, Austen, Blake.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 314 THE ROMANTICS

Fosso

Content: English writers circa 1789 to 1837 including Blake, Wordsworth,

Coleridge, Keats, Shelley, Byron.

Prerequisite: Junior standing or consent of instructor.

Taught: Annually, 4 semester credits.

#### 315 THE VICTORIANS

Fosso, Zimring

Content: Major Victorian writers and their responses to social and economic conditions. May include the Brontes, Eliot, Dickens, Nightingale, Hardy, Tennyson, Browning, Carlyle, Ruskin, Mill, Arnold, Gaskell, Mayhew, Gissing. Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 316 20th-Century British Literature, Early

Zimring

Content: Major British and Irish writers of the first part of this century whose responses to such major events as World War I shape the conventions of 20th-century British literature, in particular modernism. Conrad, Yeats, Woolf, Joyce, Lawrence, Forster, Eliot, Auden, Rhys, Ford.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 317 20th-Century British Literature, Post-World War II

Staff

Content: British writers who came into prominence following World War II. May include Osborne, Cary, Sillitoe, Lessing, Pinter, Pym, Lively, Drabble, Larkin, Heaney.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 318 Modern Poetry

Staff

Content: Significant modern British and American figures and more recent poets. May include Owen, Auden, Kavanagh, Williams, Stevens, Moore, Bishop, Roethke, Plath, Levertov.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 319 Postcolonial Literature: Anglophone Africa, India, CARIBBEAN

Zimring

Content: Post-World War II literary works and essays exploring the literary and cultural issues raised by the collapse of the colonial world order. Western travel and primitivism; decolonization and national allegories; authenticity and the invention of tradition; immigrant dreams; constructions of race; women and the nation; adolescence and the novel of education. Rhys, Naipaul, Rushdie, Emecheta, Coetzee, Mukerjee, Achebe, Ngugi, Hagedorn, Kureishi.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 320 Early American Literature

Berkson

Content: American writing from the Puritans to the early 19th century, including Native American myths, autobiographies, oratory. The Book of Genesis, the Onondaga Iroquois Creation Myth, the Winnebago Trickster Cycle, sermons and writings by Abigail Adams, John Adams, Bradford, Bradstreet, Child, Cooper, Edwards, Franklin, Irving, Mather, Sedgwick, Winthrop.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 321 THE AMERICAN RENAISSANCE

Berkson

Content: Transcendentalism; the coming together of Puritan and romantic ideology in American literature; the influence of two powerful antebellum political movements, abolitionism and suffrage, on American literature. Brent, Dickinson, Douglass, Emerson, Fuller, Melville, Stowe, Thoreau, Whitman.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 322 Post-Civil War American Literature

Berkson, Callahan

Content: American literature as it reflects cultural and historical events such as reconstruction, industrialization, Western expansion, the women's rights movement. Aesthetic issues such as the rise of realism and naturalism. Cather, Chesnutt, Chopin, Crane, Douglass, Dreiser, DuBois, James, Jewett, Melville,

Norris, Twain, Wharton.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 323 Modern American Literature, 1900 to World War II

Callahan

Content: American literature in the first half of the 20th century as it is shaped by American writers' growing familiarity with European modernism, with the failure of Victorian values exposed by World War I, and with the increasing presence of women and minority writers. Anderson, Cather, Dos Passos, Faulkner, Fitzgerald, Hemingway, Hurston, LeSueur, Stein, Steinbeck, Toomer, West, Wright.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 324 MODERN AMERICAN LITERATURE, POST-WORLD WAR II

Callahan

Content: American literature in the second half of the 20th century as writers respond to such historical and cultural forces as the civil rights movement, the women's movement, the Vietnam War. Aesthetics of postmodernism and the breakdown and mingling of traditional literary genres. Baldwin, Barth, Bellow, Doctorow, Ellison, Erdrich, Lowell, Mailer, Morrison, O'Connor, Olsen, Plath, Salinger, Silko, Walker.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 326 AFRICAN-AMERICAN LITERATURE

Callahan

Content: The African-American literary tradition from the late 19th century to the present. Points of contact with, and departure from, the rest of American literary history with emphasis on the black oral tradition, particularly the pattern of call-and-response as writers adapt it to the literary forms of fiction and poetry from spirituals, work songs, blues, jazz, and storytelling. May include Baldwin, Baraka, Brooks, Brown, Chesnutt, Dove, DuBois, Dunbar, Ellison, Gaines, Harper, Hayden, Hughes, Hurston, Charles Johnson, James Weldon Johnson, Knight, Morrison, Toomer, Walker, Williams, Wilson, Wright.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 330 CHAUCER

Grudin

Content: Chaucer's major poetry from a variety of critical perspectives and in its historical context. Readings, in Middle English, draw alternately on The Canterbury Tales and Troilus and Criseyde.

Prerequisite: Junior standing or consent of instructor.

Taught: Annually, 4 semester credits.

## 331 SHAKESPEARE: EARLY WORKS

Asher

Content: Critical reading of plays representative of the development of Shakespeare's comedies, histories, and tragedies. Usually covers six or seven plays and selected poetry, typically including The Merchant of Venice, All's Well That Ends Well, Twelfth Night, Henry IV, Hamlet, Othello.

Prerequisite: Junior standing or consent of instructor.

Taught: Annually, 4 semester credits.

## 332 SHAKESPEARE: LATER WORKS

Asher

Content: Critical reading of plays representative of the development of Shakespeare's comedies, tragedies, romances. Usually covers six or seven plays and selected poetry from 1604 to 1611, typically including Measure for Measure, King Lear, Macbeth, Coriolanus, Antony and Cleopatra, The Winter's Tale, The Tempest.

Prerequisite: Junior standing or consent of instructor.

Taught: Annually, 4 semester credits.

## 333 Major Figures

Berkson, Zimring

Content: Detailed examination of writers introduced in other courses. Figures have included Austen, Blake, the Brontes, Ellison, Faulkner, Hemingway, Joyce, Woolf.

Prerequisite: Junior standing or consent of instructor. Taught: At least every other year, 4 semester credits.

## 340 LITERARY THEORY/CRITICISM

Fosso, Staff

Content: Prominent trends in 20th-century criticism; roots in influential earlier

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 400 ADVANCED FICTION/POETRY WRITING

Dawid, Staff

Content: An opportunity for experienced student writers to develop their skills as fiction writers and poets. A workshop with appropriate time given to poetry and fiction.

Prerequisite: English 200, 300 for fiction writers; English 201, 301 for poets; consent of instructor.

Taught: Annually, 4 semester credits, credit—no credit.

## 444 PRACTICUM

Staff

Content: Experience in editing, writing, and other aspects of publishing. Specifics vary depending on placement with a sponsoring publishing house, journal, or related enterprise.

Prerequisite: Junior standing or consent of instructor.

Taught: Annually, 1-4 semester credits.

## 450 SENIOR SEMINAR

Staff

Content: Varies in focus and content. Subjects addressed in the context of current critical discourse. Students write a long research-based paper.

Prerequisite: English 205, 206.

Taught: Annually, 4 semester credits.

#### 499 INDEPENDENT STUDY

Staff

Content: Same as English 299 but requiring more advanced work.

Prerequisite: Junior standing or consent of instructor.

Taught: Annually, 1-4 semester credits.

# English as a Second Language

See Academic English Studies in this catalog.

# **Environmental Studies**

## CHAIR: EVAN T. WILLIAMS

Environmental studies is an interdisciplinary field fostering understanding of the natural, physical, and biological setting in which life on earth exists. It integrates scientific study of ecosystems, pollution, climate, energy, and other environmental and natural resource matters on a global, regional, or local scale with policy-related study of environmental ethics and philosophy, politics, economics, history, and law in the humanities and social sciences. The field addresses natural and human-caused changes in environmental characteristics and natural resources in a comprehensive manner. Issues are examined from all sides.

#### THE MAJOR PROGRAM

The major in environmental studies is interdisciplinary with 10 core courses in environmental studies, the mathematical and natural sciences, and the social sciences. The required core courses are designed to help students develop skills in a range of intellectual domains necessary to understand the many broad and complex intellectual issues in the field of environmental studies. To probe more deeply into one of these domains, students must select and complete a six-course disciplinary/thematic concentration.

Environmental Studies 160, 210, and 400 constitute the backbone of the major. Along with introducing students to a wide range of environmental issues, Environmental Studies 160 emphasizes the process of education in critical thinking about alternative viewpoints. Quantitative, analytical, and numeracy skills are taught through the medium of energy issues in Environmental Studies 210, and primary research skills are emphasized in Environmental Studies 400. In the first year, students should take Biology 141, a chemistry course, Economics 100, and Environmental Studies 160. In the second year, students should take Geological Science 150, Environmental Studies 210, Economics 260, Political Science 330, and at least one elective in one of the concentrations. The quantitative-methodology requirement should be satisfied as early as possible, preferably no later than the sophomore year and before taking Environmental Studies 210. Environmental Studies 400 must be taken in the fall of the senior year.

Students are encouraged to participate in practica, independent study, and or research related to environmental issues. Majors are also encouraged to participate in an overseas or off-campus study program in which environmental issues are studied or could be investigated through independent study.

Students planning a career in teaching are advised to take Education 201 and Education 450 and consult with faculty in the graduate teacher education program as to the concentration most appropriate to meet their goals. Students considering a career in law are advised to take Environmental Studies 460.

The environmental studies curriculum is organized into the following core courses and concentrations. See appropriate department listings for course descriptions and prerequisites. Students declaring the major in environmental studies must develop a plan of study with an adviser who is a member of the sponsoring faculty.

#### MAJOR REQUIREMENTS

A minimum of 63 semester credits, distributed as follows:

1) Ten core courses, which should be taken as early as possible in a student's career:

Environmental Studies 160, 210, 400. Biology 141. Economics 260. Geology 150. Political Science 330. Chemistry 100, or 110, or 115. International Affairs 257 or Sociology/Anthropology 305. One of the following quantitativemethodology courses: Mathematics 105, or 131; or Computer Science 171; or Economics 103; or Communication 260; or Political Science 201; or Sociology/ Anthropology 201.

2) Six courses in one of the concentrations described below: chemistry, communication, conservation biology, economics, history and literature, international affairs, philosophy, political science, and sociology.

## AREAS OF CONCENTRATION

To ensure that all environmental studies majors graduate with an academic program that has depth and focus as well as interdisciplinary breadth, the environmental studies major consists of the core requirements plus one concentration chosen from the list below. The choice of concentration must be approved by the student's faculty adviser as the plan of study is formulated during the process of declaring a major.

Many graduate schools that offer programs appropriate for environmental studies graduates require depth in a discipline; this is particularly true for the sciences. Students who are considering postgraduate work are encouraged to investigate the admission requirements of graduate schools appropriate to their intended career path at the earliest possible time. Environmental studies majors who plan to pursue graduate study in environmental science, for instance, are strongly advised to choose a concentration in the mathematical and natural sciences or to double major in one of those areas. A second major automatically satisfies the concentration requirement if:

- 1) It corresponds to one of the existing concentrations.
- 2) The elective courses taken in the second major are selected in consultation with the environmental studies faculty adviser and are approved by the environmental studies chair.
- 3) There are 28 discrete credits in environmental studies that do not overlap with the other major.

A student who wishes to propose a modified concentration, pursue a concentration not listed below, or combine the environmental studies major with a major in a department that does not support an environmental studies concentration must submit a written petition to the environmental studies chair for approval. The petition must be signed by his or her environmental studies faculty adviser and should include the list of courses and rationale for the proposed concentration. Students must ensure that the College's rule of 28 discrete semester credits in each major is satisfied. Students are advised to check carefully for prerequisites.

While it is not necessary, students are encouraged to broaden their programs by choosing electives in environmentally oriented courses outside their respective concentrations. Independent study and practica are encouraged, but such courses do not count toward any of the concentrations except in special cases where the student obtains approval of the modification as above. The keystone course for the environmental studies major is Environmental Studies 400, Senior Seminar, in which students are expected to apply skills developed in their respective concentrations.

## Chemistry

Core Courses\* Chemistry 110 and Mathematics 131 Chemistry 120 General Chemistry II

210 Organic Chemistry I

220 Organic Chemistry II

300 Environmental Chemistry

Two chemistry courses chosen from:

310 Physical Chemistry: Thermodynamics and Kinetics

330 Structural Biochemistry

335 Metabolic Biochemistry

443 Medicinal Organic Chemistry

450 Instrumental Analysis

#### Communication

Environmental studies majors who want to concentrate in communication must minor in communication and take one additional elective. The following is a summary of these requirements:

Core Course\*

Communication 260

Communication

100 Introduction to Communication

One communication theory and praxis course chosen from:

200 Mass Media Messages: Design and Analysis

210 Public Discourse

Four communication electives, approved by the environmental studies/ communication adviser, that are relevant to the student's academic and career goals. The four courses chosen should reflect the student's communication emphasis: organizations, communication media, or public discourse.

265 Communication Criticism

310 Communication and Conflict

320 Organizational Communication

322 Ethical and Legal Issues in the Mass Media

325 The Documentary Form

340 Comparative Media Systems

354 Legal Communication

355 Political Communication

360 Persuasive Communication 385 Rhetoric of Science and Technology

406 Rhetoric of American Social Conflicts

430 Communication and Culture

## Conservation Biology

Core Courses\*

Chemistry 110 or 115 and Mathematics 131 or Computer Science 171

Biology

151 Investigations in Genetics and Evolutionary Biology

200 Investigations in Cell and Molecular Biology

335 Ecology

Chemistry

120 General Chemistry II or 135 General Chemistry Laboratory (Accelerated)

Two courses chosen from:

Biology 211, Land Vertebrates

Biology 212, Invertebrate Zoology

Biology 221, Marine Biology

Biology 311, 312, Molecular Biology/Lab

Biology 337, 338, Environmental Physiology/Lab

<sup>\*</sup> Core courses do not count separately as environmental studies electives.

Biology 342, Reproductive Biology of Seed Plants

Biology 352, Animal Behavior

Biology 361, Cell Biology

Biology 375, Comparative Physiology

Biology 390, Evolution

Chemistry 330, Structural Biochemistry

Chemistry 335, Metabolic Biochemistry

#### Economics

Environmental studies majors who want to concentrate in economics must minor in economics and take one additional elective.

Core Course\*

Economics 103

Two of the electives in this concentration must be chosen from:

Economics 232, Economic Development

Economics 332, Urban Economics

International Affairs 318, Multinational Corporations

International Affairs 340, International Political Economy

## History and Literature

History

230A United States: The Colonial Centuries, 1492–1788 or 230B United

States: The National Century, 1789–1898

336 Wilderness and the American West

Four courses chosen from:

English 314, The Romantics

English 320, Early American Literature

English 321, The American Renaissance

History 235, History of the Pacific Northwest

History 300, Historical Materials

History 331, American Culture and Society: 1880–1980

History 335, History and Culture of the American Indian

Philosophy 103, Ethics

Religious Studies 366, From "Howling Wilderness" to "Mother Earth"

## International Affairs

Environmental studies majors who want to concentrate in international affairs must also major in international affairs and should take:

Core Course\*

International Affairs 257

International Affairs

211 International Organizations

318 Multinational Corporations or 340 International Political Economy

332 Geopolitics or 333 International Law

# Philosophy

101 Logic

103 Ethics

202 Philosophy of Science

203 Philosophy of Art and Beauty or 214 Philosophy of Law

303 19th-Century Philosophy

<sup>\*</sup> Core courses do not count separately as environmental studies electives.

310 Current Issues in Metaphysics, or 311 Current Issues in Epistemology, or a selected course in the philosophical studies series: 452 Topics in Ethics, Society, and Politics, or 453 Topics in Epistemology, Metaphysics, and the Sciences

## Political Science

Core Course\*

Political Science 201

Political Science

102 Comparative Political Systems

103 U.S. Government: National Politics

310 Pillars of Western Political Thought: Plato to Machiavelli, or 311 Pillars of Western Political Thought: Hobbes to Foucault

Three courses chosen from:

Political Science 252, Public Opinion and Survey Research

Political Science 302, Political Parties and Interest Groups

Political Science 305, Constitutional Law: Civil Liberties

Political Science 306, Public Administration

Political Science 320, European Agrarian Development in

Comparative Perspective

Political Science 321, Problems of Communism and Postcommunism

Political Science 353, The National Policy Process

A political science course taken as part of the Washington, D.C., study program

International Affairs 100, Introduction to International Affairs

Environmental Studies 460, Topics in Environmental Law and Policy

## Sociology

Core Courses\*

Sociology/Anthropology 201 and 305

Sociology/Anthropology

100 Introduction to Sociology or 110 Introduction to Cultural Anthropology

221 Sociology of Work, Leisure, and Consumption

222 City and Society

300 Social Theory

Two sociology/anthropology courses chosen from:

314 Social Change

350 Global Inequality

370 American Advertising and the Science of Signs

Note: Courses taken in other accredited colleges or programs may be accepted on a case-by-case basis at the discretion of the chair. Students must consult, in advance, the chair and the registrar to ensure that credits earned in such courses or programs will be accepted for credit toward the environmental studies major.

## Honors

Students who have distinguished themselves academically (GPA of 3.500 in the major and overall) will be invited in the final semester of their junior year to apply for the opportunity to participate in the honors program. Honors candidates work with faculty advisers to develop proposals for research projects, which must be approved by a committee of three environmental studies faculty members. Each student prepares a written thesis in draft form, which must be circulated to the committee no later than the ninth week of the student's final semester. After the student completes the final version of the thesis and makes a formal oral presentation to the faculty, the faculty

<sup>\*</sup> Core courses do not count separately as environmental studies electives.

determine whether to grant honors on graduation.

## SPONSORING FACULTY

Charles R. Ault Jr., professor of education.

Kellar Autumn, associate professor of biology.

Barbara A. Balko, associate professor of chemistry.

Donald G. Balmer, U.G. Dubach Professor of Political Science, emeritus.

Stephen Dow Beckham, Dr. Robert B. Pamplin Jr. Professor of History.

Paulette F. Bierzychudek, William Swindells Sr. Professor of Natural Sciences.

Greta Binford, assistant professor of biology.

Kenneth E. Clifton, assistant professor of biology.

Eban S. Goodstein, professor of economics.

James L. Huffman, Erskine Wood Sr. Professor of Law and dean of the law school.

William J. Kinsella, assistant professor of communication.

Bob Mandel, professor of international affairs.

Jay Odenbaugh, assistant professor of philosophy.

Bruce M. Podobnik, assistant professor of sociology.

Daniel J. Rohlf, associate professor of law.

Elizabeth B. Safran, assistant professor of geological science.

Gregory A. Smith, professor of education.

Herschel B. Snodgrass, professor of physics.

Evan T. Williams, professor of chemistry.

## 160 Introduction to Environmental Studies

Williams

Content: Introduction to the range of environmental studies. Interactive discussions of scientific, economic, resource, policy, ethical, and cultural issues, as well as critical thinking about related issues with the Lewis & Clark environmental studies faculty. Lectures and readings, group projects, and a research paper. Specifically intended for students who plan to major in environmental studies.

Prerequisite: Biology 141, or Chemistry 100 or 110, or Economics 100, or consent of instructor. Enrollment limited to first- and second-year students, except with consent of instructor.

Taught: Annually (spring), 2 semester credits.

# 210 Energy and Environment: A Quantitative Approach

Content: Development of environmental numeracy with a focus on energy issues. Quantitative understanding, detailed discussion of the laws of thermodynamics and the limits imposed on efficiency of energy conversion. Exponential and Hubbert models of resource consumption. Large-scale environmental impact models. Estimation. Environmental consequences of energy use.

Prerequisite: Biology 141 or Chemistry 100 or 110 and completion of the environmental studies quantitative-methodology requirement.

Taught: Annually, 4 semester credits.

#### 244 Practicum

Staff

Content: Nonclassroom learning experience combining theoretical concepts and skills learned in the classroom with practical work in an on-campus or offcampus setting. Additional readings and written assignments required. Arrangements for the practicum should be made during the semester prior to

Prerequisite: Consent of instructor. At least two courses from the core major requirements listed above.

Taught: Each semester, 1-4 semester credits.

#### 299 INDEPENDENT STUDY

Staff

Content: Research or individual study topics arranged in consultation with a faculty supervisor.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

#### 400 SENIOR SEMINAR

Williams

Content: An advanced, integrative keystone seminar involving primary research for all senior environmental studies majors. Readings and discussion of current topics related to sustainability. Research projects are based on each student's concentration within the major and include both oral and written components. Students are encouraged to start planning their projects through informal meetings with the instructor during the previous semester or, preferably, even earlier. Students should have completed all other environmental studies core courses prior to taking this course.

Prerequisite: Senior standing or consent of instructor.

Taught: Annually (fall), 4 semester credits.

#### 444 PRACTICUM

Staff

Content: Same as Environmental Studies 244 but requiring more advanced work. Students should have completed all the environmental studies core courses (except Environmental Studies 400) prior to taking this course. Prerequisite: Junior standing and consent of instructor.

Taught: Each semester, 1-4 semester credits.

# 460 Topics in Environmental Law and Policy

Williams

Content: Introduction to issues in environmental law and policy. Taught by environmental and natural resources law faculty of Lewis & Clark Law School, the course covers major areas in environmental law. Topics vary and may include water law, Endangered Species Act, hazardous waste law, environmental justice, environmental law enforcement, World Trade Organization, public lands law, Clean Air Act, and National Environmental Policy Act. Panels discuss careers in law and study of law. A unique opportunity for students interested in careers in environmental law and policy.

Prerequisite: Political Science 305 or 330, junior standing, and consent of environmental studies chair.

Taught: Alternate years, 3 semester credits.

## **499 INDEPENDENT STUDY**

Staff

Content: Opportunities for well-prepared students to design and pursue a substantive course of independent learning on an advanced level. Details determined by the student and the supervising instructor. Candidates for honors will register for this course. Students should have completed all the environmental studies core courses (except Environmental Studies 400) prior to taking this course.

Prerequisite: Junior standing and consent of instructor.

Taught: Each semester, 1-4 semester credits.

# Foreign Languages and Literatures

## CHAIR: DINAH DODDS

Consistent with the international orientation of the College, the Department of Foreign Languages and Literatures offers students a program of language, literature, literature in translation, and overseas study. Students learn to communicate in a foreign language, to think and read critically, and to understand values, beliefs, and cultural patterns that are different from their own. Recognizing the importance of learning the language in an environment where it is spoken, the department requires overseas study of its majors.

Courses in seven languages, including four major and three minor programs, are available for students who wish to continue studies in language, linguistics, and literature in graduate school; obtain a broad liberal arts education; and/or pursue particular career or professional objectives.

## THE MAJOR PROGRAMS

The department offers four major programs: French Studies, German Studies, Hispanic Studies, and Foreign Languages. Minors are offered in Chinese, Japanese, and Russian. Majors are encouraged to combine their knowledge of the language and literature of an area of the world with fields such as American and English literature, anthropology, art, business, communication, economics, history, international affairs, and sociology. Students should declare a major at the latest by the end of the sophomore year, at which time they choose a departmental adviser. Majors are encouraged to select an adviser as soon as possible since their major program, which includes overseas study, will require careful planning. Students who double-major select advisers in both departments. Faculty advisers provide counsel on course selection; major, minor, and general graduation requirements; international programs; careers; graduate study; and teaching assistantships. The department holds group meetings for majors at the beginning of each school year and as needed during the year.

## OVERSEAS STUDY REQUIREMENT: ALL MAJORS

All majors are required to participate in one of the College's international programs. Overseas study is the most effective way for students to improve their language skills and experience the culture they are studying.

In **Chinese**, the following overseas programs are available:

- 1) Majors in foreign languages with the primary language in Chinese may spend the fall semester in Beijing, China, and may extend their stay for a full year. Internship and practicum opportunities are available. Chinese 202 or the equivalent is a prerequisite.
- 2) Majors in foreign languages with the primary language in Chinese may spend the spring semester in Harbin, China. Language immersion and research tutorial are the topics in Harbin. Chinese 202 or the equivalent is a prerequisite.
- 3) For nonmajors and majors, the country study in Guilin, Guangxi, China, is offered annually in the fall. This program fulfills the College language requirement. Chinese 102 is a prerequisite.

The above programs fulfill the overseas requirement for the Chinese minor, the East Asian studies major, and the foreign languages major with Chinese as the primary language.

4) Summer study is available in Guilin, Guangxi, China, where students can take two intensive language courses and a class in the history and culture of China. This program has no prerequisites and fulfills one of the two-course

international studies requirement.

5) For summer language study, Lewis & Clark is part of the University of Massachusetts at Amherst consortium, and students may enroll in intensive language study programs at Tunghai University in Taichung, Taiwan. Chinese 102 is a prerequisite for intermediate Chinese; Chinese 202 is a prerequisite for advanced Chinese.

Students may combine two of the programs listed in 1-5 above for a full year of study.

In **French**, the following overseas programs are available:

- 1) French studies majors are required to spend at least one semester studying at the University of Nancy, France, or at the University of Dakar, Senegal. A full year of study is strongly recommended. The Nancy program is available fall and/or spring semester; prerequisites are junior standing, completion of French 202, and a GPA of 3.000 in French courses. The Senegal program is available spring semester only; prerequisites are junior standing, completion of French 321, and a GPA of 3.000 in French courses.
- 2) For nonmajors, the country study in Strasbourg or Nancy is scheduled annually for both fall and spring semesters. French 202 and a GPA of 3.000 in French courses are prerequisites.
- 3) The spring-semester Senegal program is also open to nonmajors. Prerequisites are junior standing, French 202, and a GPA of 3.000 in French courses.

In **German**, the annual full-year academic program in Munich is open to German majors and nonmajors. It is affiliated with the University of Munich, where students may take courses in many fields. Prerequisite is two years of college German.

In **Japanese**, the following programs are available:

- 1) Foreign languages majors with Japanese as their primary language spend fall or spring semester or the full year at Kansai Gaidai University in Osaka. Japanese 202 or the equivalent is a prerequisite.
- 2) For nonmajors, the country study in Sapporo is offered annually for one semester, generally in the fall. This program fulfills the College language requirement. Japanese 102 is a prerequisite.

Both Japanese overseas study programs satisfy the overseas requirement for the Japanese minor, the East Asian studies major, and the foreign languages major with Japanese as the primary language.

In **Russian**, the following program is available:

Foreign languages majors with Russian as the primary language are required to participate in the St. Petersburg program. Russian minors are strongly encouraged to participate in the St. Petersburg program. This program also fulfills the College language requirement and the international studies requirement. Russian 102 is a prerequisite.

In **Spanish**, the following programs are available:

- 1) An annual spring semester program in Ecuador. Spanish 201 is a prerequisite.
- 2) Fall/spring/full-year program in Santiago de Los Caballeros, Dominican Republic. Spanish 202 is a prerequisite. Fall/spring/full-year program in Santo Domingo, Dominican Republic. Three years of college Spanish or participation in the fall semester program in Santiago de Los Caballeros or the spring semester program in Ecuador is a prerequisite.
- 3) A biennial spring semester program in Seville, Spain. Spanish 201 is a prerequisite.
- 4) An annual fall/spring/full-year program in Santiago, Chile, at the Catholic and National universities. The full-year program includes an option to complete the second semester in Valparaiso, Chile. Three years of college

Spanish or participation in the fall semester program in Santiago de Los Caballeros, Dominican Republic, or the spring semester program in Ecuador is a prerequisite.

Hispanic studies majors are required to participate in at least a onesemester program in either the Dominican Republic or Chile. The department recommends that Hispanic studies majors spend a full year in Chile or the Dominican Republic or combine one semester at another site with a semester in Chile or the Santo Domingo program. With special consent, the programs in Ecuador and Spain fulfill this requirement.

## MAJOR REQUIREMENTS: FRENCH, GERMAN, OR HISPANIC STUDIES

These majors provide courses in language, literature, and culture to prepare students for graduate study and for careers in teaching, bilingual education, translating and interpreting, or other areas in which foreign language skills are applied. Major requirements are distributed as follows:

- 1) A minimum of 36 semester credits (nine courses) in one language beyond 202 to include: a) French, German, or Spanish 301 and 321, or equivalent (Hispanic Studies majors who participate in a one-semester overseas program must take 321 on campus). **b)** Spanish 380 or 390. **c)** French 410, German 410 and 411 (411 available in Munich only); Spanish 410. d) French, German 450, Spanish 440 or 450 (may be repeated with change of topic). e) French and German studies: History 120, or 121, or 225, or 226 (German only), or equivalent. Hispanic studies: Students studying overseas may apply toward the major one Latin American history course overseas or on campus (History 141, 142) or International Affairs 231. f) Francophone Literature (330) and French Literature and Society (340) may be counted toward the major. g) Hispanic and German studies: conversation courses 251 and 252 may be counted toward the major, if two courses are taken.
- 2) Study abroad: a) French studies, one-semester or full-year program in Nancy, France, or Dakar, Senegal. **b)** German studies, full-year Munich program. c) Hispanic studies, one-semester or full-year program in Chile or the Dominican Republic. Exemption from this requirement is possible only with departmental approval.
- 3) Majors are required to take a senior oral proficiency examination. Note: Upper-level courses taken on campus on a credit–no credit basis cannot normally be counted toward the major, except conversation courses 251 and 252.

## MAJOR REQUIREMENTS: FOREIGN LANGUAGES

This major allows students to pursue the study of any two of the following languages: Chinese, French, German, Japanese, Russian, Spanish. The foreign languages major is appropriate for students interested in foreign language skills and the structure of language. The department encourages students to combine their language skills with fields such as American and English literature, anthropology, art, business, communication, economics, English, history, international affairs, and sociology. The major requires a minimum of 16 semester credits in a primary language, 12 semester credits in a secondary language, 4 semester credits in linguistics (for a total of 32 semester credits), and one semester overseas, distributed as follows:

1) If French, German, or Spanish is the primary language: Four courses beyond 202 (a minimum of 16 semester credits); French, German, or Spanish 301, 321, or equivalent abroad and one literature course. Spanish 380 or 390, French, German 410 or 450 or German 411 (German 411 available in Munich only). If Chinese or Japanese is the primary language: Three courses beyond

- 202 taught in the language (one of which must be taken on campus) and Chinese, Japanese 230 or 290. If Russian is the primary language: Three language courses (one of which must be taken on campus) beyond 201 and 210 (on campus) or equivalent from overseas and Russian 230 or 290.
- 2) Three courses beyond 202 (a minimum of 12 semester credits) in a secondary language selected from: French, German, Spanish: 301, 321, or equivalent; German, Spanish 230, French 330 or 340, or two conversation courses, or with consent of department Spanish 380 or 390, French, German 410 or 450. Chinese, Japanese: 310, 320, 410, 420 (Japanese only) or either 230 or 290. Conversation courses 251 and 252 if two are taken. One course at the 300 or 400 level must be taken on campus. Russian: 252 (if taken twice), 270, 330, 350, or either 230 or 290. One 4-semester-credit language course must be taken on campus.
- 3) Introduction to Linguistics (Foreign Languages 240).
- **4)** A minimum of one semester studying overseas in the primary language.
- 5) Study of a third language at the 100 and 200 levels will not count toward graduation with the exception of languages that are not regularly taught at Lewis & Clark and are part of overseas programs.

## MINOR REQUIREMENTS: CHINESE, JAPANESE, AND RUSSIAN

These minors serve students who wish to learn Chinese, Japanese, or Russian language and literature as a complement to their major. They are attractive to students majoring in fields such as anthropology, art, business, communication, economics, history, international affairs, and sociology.

- 1) A minimum of 20 semester credits (five courses) beyond 202 (Chinese, Japanese) and 20 semester credits (five courses) beyond 201/210 (on campus) or equivalent from overseas for Russian.
- 2) One of the following: **a)** Russian 100. **b)** Chinese, Japanese, or Russian 230.
- c) Chinese, Japanese, or Russian 290.
- 3) A minimum of four courses (16 semester credits) selected from the following list. At least one 4-semester-credit course must be taken on campus.
- a) Chinese, Japanese 251, 252. (Two conversation courses must be taken to count toward the minor.) b) Chinese, Japanese 310. c) Chinese, Japanese 320.
- d) Chinese, Japanese 410, Japanese 420. e) Chinese, Japanese 315, 316 and 415, 416 (advanced language courses offered overseas). f) Chinese, Japanese 230 or 290 if not counted in 2 above. g) International Studies 240, 241, 242 (offered overseas). h) Russian 270. i) Russian 330. j) Russian 350. k) Russian 315, 316 (advanced language courses offered overseas). 1) International Studies 240, 241 (offered overseas). m) Russian 100, or 230, or 290 for students who do not go overseas and if not counted in 2 above.
- 4) Students beginning their language study on campus are normally expected to participate in an overseas program. Students with previous language study or equivalent experience may meet the requirements for the minor solely through coursework on campus; however, all students are strongly encouraged to study overseas for at least one semester.
- 5) A minimum of 12 semester credits must be discrete to the minor (may not be used in any other set of major or minor requirements).

#### SPECIAL PROGRAMS

The foreign language department's literature and culture programs are complemented by several interdisciplinary programs. Students of Chinese or Japanese may major or minor in East Asian studies. (See separate listing in this catalog.) Students of Spanish may choose an interdisciplinary minor in Latin

American studies. (See separate listing in this catalog.)

#### **Honors**

The department invites outstanding students to submit proposals for an honors project to be defined in consultation with department faculty. Students must have a GPA of 3.500 or higher in the major and overall. The program entails a two-semester independent-study research project culminating in a paper. Students must begin their projects no later than the first semester of their senior year and present them to the department by the 10th week of the final semester. While pursuing their honors projects, students must be enrolled in 490, Honors Thesis, for no more than 4 semester credits. Credit earned for the honors project is in addition to the nine courses required for the major.

## RESOURCES FOR NONMAJORS

Students who have had no language training should begin a foreign language at the 101 level. Others who have had experience with a foreign language may take a placement examination upon entering Lewis & Clark to determine the level at which they should start a college language program. The computerized placement test in Spanish is also administered once a semester prior to advising. Anyone with adequate background may take any and all courses offered in that language. The department offers a linguistics course and literature courses in English translation.

#### FACULTY

Nicole Aas-Rouxparis, professor. French, 20th-century French and Francophone literatures and cultures, women writers.

Katharina Altpeter-Jones, instructor. German, medieval and early modern German literature, women writers.

Keith Dede, assistant professor. Chinese language and linguistics.

Isabelle DeMarte, assistant professor. French, 18th-century French literature. Dinah Dodds, professor. German, modern German literature, music and literature, women writers, teaching methodology.

Mónica Flori, professor. Spanish, modern and contemporary Latin American and Spanish fiction, Latin American contemporary women writers, Latin American civilization, Southern Cone fiction.

Tatiana Osipovich, associate professor. Russian literature, language, culture. Bruce Suttmeier, assistant professor. Japanese language, contemporary Japanese literature.

Juan Carlos Toledano, assistant professor. Spanish, 19th- and 20th-century Spanish-American literature, Hispanic-Caribbean literature.

Wendy Woodrich, senior lecturer. Spanish language, Latin American literature and culture, Hispanics in the United States.

## Instructors

Mireille Balland. French language.

Cecilia Benenati. Spanish language.

Michie Shinohara Deeter. Japanese language.

Meiru Liu. Chinese language.

Marisela Nyoka. Spanish language.

Donna T. Seifer. Russian language and culture.

## 299, 499 INDEPENDENT STUDY

Staff

Content: Available in Chinese, French, German, Japanese, Russian, Spanish. Independent work dealing with the language, literature, or culture of the country or countries being studied. Students design the course in consultation with a faculty member as to title, content, means of evaluation, and amount of academic credit.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

## Linguistics

## FL 240 Introduction to Linguistics

Dede

Content: An introduction to the scientific study of language that explores the methodology linguists use to discuss language, as well as the ways in which language interacts with other disciplines. The structures underlying individual languages, language families, and human language generally. The degree to which language is shaped by the society in which it is used, how it changes over time, and its complex relationship to the human brain. Readings and first-hand investigation.

*Prerequisite:* The completion of one foreign language through the 201 level. Taught: Annually, 4 semester credits.

## Chinese

## 101, 102 BEGINNING CHINESE

Dede

Content: Introduction to basic structures of Standard Chinese with the goal of developing an elementary ability to converse, read, and write on topics of daily life. Emphasis on developing communicative competence. Reading and writing Chinese (approximately 400 characters). Contemporary culture introduced in the context of language learning.

Prerequisite: None. Must be taken in sequence. Taught: Annually, 4 semester credits each.

## 201, 202 Intermediate Chinese

Dede, Liu

Content: Continuing development of ability to read and write on topics of daily life and general concern in Standard Chinese. Increase in expectation of students' competence in the written language, including the addition of 900 characters. Introduction to the use of dictionaries. Basic expository writing. Prerequisite: Chinese 102 or equivalent. Must be taken in sequence. Taught: Annually, 4 semester credits each.

## 230 Introduction to Chinese Literature in Translation

Dede

Content: Introduction to themes in the Chinese literary tradition. English translations of poetry, prose, fiction, drama from the 7th century B.C. to the 20th century, with emphasis on premodern Chinese literature. Lectures, discussions, student essays, and supplementary background readings on literary, cultural, historical, philosophical, religious, and social background of Chinese literary works studied. Taught in English; no background in Chinese language or literature required.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 251, 252 CHINESE CONVERSATION

Staff

Content: Vocabulary and idioms in spoken Chinese. Improving pronunciation and correcting grammar to increase students' mastery of spoken Chinese, encourage self-confidence in using the language, and enable students to

function in a Chinese environment.

Prerequisite: Chinese 201 or consent of instructor.

Taught: Annually, 2 semester credits each. Both courses may be taken twice for credit or taken in sequence for a maximum of 4 credits.

## 290 Topics in Chinese Literature in Translation Dede

Content: English translations focusing on literary genre (poetry, prose, fiction, drama), period (ancient, medieval, modern, contemporary), and/or theme (mythology, the supernatural, Taoist writings, secular rituals, race and gender). Lectures, discussions, student essays, and background readings on literary, cultural, historical, philosophical, religious, and social background of works studied. Topics vary from year to year. Taught in English; no background in Chinese language or literature required. Previous topics: Language, Culture, and Society; Nature in Chinese Literature and Film; Contemporary Literature and Film; Taoist Thought and the Novel.

Prerequisite: None. Chinese 230 recommended.

Taught: Alternate years, 4 semester credits. With consent of instructor, may be taken twice for credit.

## 310 Readings and Composition in Chinese

Content: Oral expression, listening comprehension, reading, and writing. Expository and creative writing, syntax, idiomatic usage emphasized to promote fluency. Review and consolidation of grammar and Chinese characters from previous years, expansion of structural and idiomatic command. Increased use of Chinese dictionaries. Reading and writing in both regular and simplified characters. Short oral presentations, compositions, other exercises to build toward mastery of speaking, reading, writing. Short prose works, fiction, drama, poetry, and print and video media.

Prerequisite: Chinese 202 or equivalent, or consent of instructor. Taught: Annually, 4 semester credits. With consent of instructor, may be

taken twice for credit.

#### 320 ADVANCED READINGS IN CHINESE

Content: Advanced language study based on readings and films about China on topics of cultural interest such as modes of thought, history, contemporary culture, current social issues. Substantial expansion of ability to read characters while maintaining written command through frequent writing exercises. Reading and writing in both regular and simplified characters. Topics vary from vear to vear.

Prerequisite: Chinese 202 or equivalent, or consent of instructor. Chinese 310 recommended.

Taught: Annually, 4 semester credits. With consent of instructor, may be taken twice for credit.

## 410 ADVANCED READINGS IN CHINESE: SOCIETY AND CULTURE Dede, Liu

Content: A continuation of advanced language study focusing on unedited Chinese texts and the tools necessary for understanding them. Readings from a variety of genres, including belles lettres, academic essays, and newspapers. Includes an introduction to library and online resources that are commonly used for the study of Chinese texts. Students write critical essays on their readings. Content varies from year to year.

Prerequisite: Chinese 320 or equivalent, or consent of instructor.

Taught: Annually, 4 semester credits. With consent of instructor, may be taken twice for credit.

## 444 CHINESE PRACTICUM

Dede, Liu

Content: Advanced Chinese language students lead beginning and intermediate students in conversation groups and in discussions of Chinese

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

## **490 Honors Thesis**

Dede

Content: Independent research project suitable for granting departmental honors. Details determined by student in conference with supervising faculty member.

Prerequisite: Consent of instructor and departmental approval.

Taught: Annually, 1-4 semester credits.

## French Studies

## 101, 102 BEGINNING FRENCH

Balland, DeMarte, Staff

Content: Basic vocabulary and structural patterns of the French language. Emphasis on developing speaking and writing skills. Practical conversations dealing with all aspects of traditional French and Francophone culture.

Interactive learning center attendance required.

Prerequisite: None. Must be taken in sequence.

Taught: Annually, 4 semester credits each.

#### 201, 202 Intermediate French

Aas-Rouxparis, Balland, DeMarte

Content: Strengthening language skill foundation. Solid grammar review and vocabulary expansion. Emphasis on oral and written proficiency. Short compositions and group presentations based on selected literary and cultural readings, audio and video materials. Interactive learning center attendance required.

Prerequisite: French 102 or placement exam. Must be taken in sequence.

Taught: Annually, 4 semester credits.

#### 230 French Literature in Translation

DeMarte, Staff

Content: Study of translations of selected outstanding works of French and Francophone literature including novels, short stories, plays, and poetry. Lectures, discussions, student essays, supplementary readings on literary, cultural, historical, philosophical, religious, and social background of works studied. Taught in English; no background in French or French literature required.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

#### 244 French Practicum

Aas-Rouxparis, DeMarte

Content: Independent work dealing with a French/Francophone project under faculty supervision. Advanced students lead beginning and intermediate French discussion groups.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

## 261, 262 Conversational French

Alinhac

Content: Development of speaking and listening skills. Topics of conversation and new vocabulary, idioms, and sentence patterns from authentic cultural and literary materials.

Prerequisite: French 202.

Taught: Annually, 2 semester credits each. Both courses may be taken twice for credit or taken in sequence for a maximum of 4 credits.

#### 301 French Composition and Conversation

Aas-Rouxparis, DeMarte

Content: Oral expression, idiomatic usage, and creative writing with advanced grammar review. Readings, discussions, and compositions based on selections from French culture and literature, magazines, and videos. Emphasis on

developing proficiency in spoken and written French.

Prerequisite: French 202 or placement exam.

Taught: Annually, 4 semester credits.

#### 321 French Prose and Written Expression

Aas-Rouxparis, DeMarte

Content: Advanced study of French syntax and stylistics based on readings from contemporary French and Francophone literature and culture. Expository and creative oral and written expression; conceptualization in the language.

Group discussions, individual projects, midterm, final.

Prerequisite: French 301 or consent of instructor.

Taught: Annually, 4 semester credits.

#### 330 Francophone Literature

Aas-Rouxparis

Content: Study of major works by Francophone writers outside of France (Africa, Canada, Caribbean). Focus on sociocultural issues as expressed in literature. Class discussion, short papers, research project, midterm, final.

Prerequisite: French 301 or consent of instructor. Taught: Alternate years, 4 semester credits.

#### 340 French Literature and Society

Aas-Rouxparis, DeMarte

Content: In-depth study of representative works of French poetry, short fiction, or drama from a particular historical period. Focus on a specific genre and/or theme. An examination of how literature provides aesthetic responses to political and sociocultural issues through innovative strategies of narration and interconnections between literature and the arts.

Prerequisite: French 301 or consent of instructor. Taught: Alternate years, 4 semester credits.

## 410 Major Periods in French Literature

Aas-Rouxparis, DeMarte

Content: Major trends in French literature from the Middle Ages to the 20th century. Introduction to basic techniques of literary analysis. Class discussion, oral presentations, short papers, midterm, final.

Prerequisite: French 321 or consent of instructor.

Taught: Annually, 4 semester credits.

## 444 FRENCH PRACTICUM

Aas-Rouxparis, DeMarte

Content: Independent research dealing with a French/Francophone project under faculty supervision. Participation in a theatre workshop that culminates in mounting a French play for the campus community.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

## **450 SPECIAL TOPICS**

Aas-Rouxparis, DeMarte

Content: Special topics or issues of French/Francophone literature and culture. Emphasis on stylistics and fine points of idiomatic usage. Extensive oral and written work culminating in a research paper written and presented in French. Prerequisite: French 321.

Taught: Annually, 4 semester credits. May be taken twice for credit.

#### **490 Honors Thesis**

Aas-Rouxparis, DeMarte

Content: Independent research project suitable for granting departmental honors. Details determined by student in conference with supervising faculty member.

Prerequisite: Consent of instructor and departmental approval.

Taught: Annually, 1-4 semester credits.

## German Studies

## 101, 102 BEGINNING GERMAN

Altpeter-Jones

Content: Fundamentals of German through speaking, listening, reading, writing. Basic vocabulary and grammatical structures of German practiced orally and in writing. Large- and small-group participation. Viewing and discussion of short films to develop conversational skills. Interactive computer exercises for individual student practice. Oral projects. Web-based activities.

Prerequisite: None. Must be taken in sequence.

Taught: Annually, 4 semester credits each.

## 201, 202 Intermediate German

Dodds

Content: Active language skills and grammar review. Reading of short stories for class discussion and writing compositions to implement new vocabulary and structure. German film segments to improve listening comprehension and speaking proficiency.

Prerequisite: German 102 or placement exam. Must be taken in sequence.

Taught: Annually, 4 semester credits each.

## 230 GERMAN LITERATURE IN TRANSLATION

Altpeter-Jones

Content: Introduction to major writers of German literature including Thomas Mann, Franz Kafka, Bertolt Brecht, Christa Wolf, Max Frisch. Emphasis on authors who treat relevant social, political, historical, or cultural issues. Topics vary from year to year. Taught in English; no background in German language or literature required.

Prerequisite: None.

Taught: Every third year, 4 semester credits.

#### 244 GERMAN PRACTICUM

Altpeter-Jones, Dodds

Content: Advanced language students lead beginning and intermediate German students in weekly discussions of German instructional films.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-2 semester credits. May be repeated for credit.

## 251, 252 CONVERSATIONAL GERMAN

Schmitt

Content: Development of speaking and listening proficiency through analytical and creative activities such as discussions, presentations, skits, interactive games. Newspapers, magazines, and contemporary films provide sources for topics of conversation, vocabulary, idioms, and patterns of language use. Prerequisite: German 201.

Taught: Annually, 2 semester credits each. Both courses may be taken twice for credit or taken in sequence for a maximum of 4 credits.

#### 301 GERMAN COMPOSITION AND CONVERSATION

Content: Oral expression, idiomatic usage, and creative and expository writing with grammar review and new grammatical material. Readings, discussions, and compositions based on selections from German literature and culture. Emphasis on developing proficiency in spoken and written German with correct syntax and style.

Prerequisite: German 202 or placement exam.

Taught: Annually, 4 semester credits.

## 321 GERMAN PROSE AND WRITTEN EXPRESSION

Altpeter-Jones

Content: Expository and creative writing with compositions, critical readings, and discussions based on selections from 20th-century German literature and culture. Advanced grammar, stylistics, and idiomatic usage studied in the context of reading and writing. Proficiency-based oral presentations, compositions, exams, projects.

Prerequisite: German 301 or consent of instructor.

Taught: Annually, 4 semester credits.

## 410 Major Periods in German Literature From the Beginning TO ENLIGHTENMENT

Altpeter-Jones

Content: Introduction to the most important works of literature of the early Middle Ages, the courtly period of the 12th century, the Reformation, and baroque period. Close reading of texts and development of writing and speaking proficiency, culminating in a research paper written and presented in German.

Prerequisite: German 321 or consent of instructor.

Taught: Annually, 4 semester credits.

## 444 GERMAN PRACTICUM

Altpeter-Jones, Dodds

Content: Advanced language students lead beginning and intermediate German students in weekly discussions of German instructional films.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-2 semester credits.

#### 450 SPECIAL TOPICS

#### Dodds

Content: Special topics pertaining to prominent issues of German literature and culture. Primary texts explored in the context of current critical discourses. Topical content varies. Recent topics: art and politics in German literature and film, genius and madness, love and death in German literature and film. Proficiency practiced through extensive oral and written work culminating in a research paper written and formally presented in German. Prerequisite: German 321.

Taught: Annually, 4 semester credits. May be taken twice for credit.

#### **490 Honors Thesis**

Altpeter-Jones, Dodds

Content: Independent research project suitable for granting departmental honors. Details determined by student in conference with supervising faculty member.

Prerequisite: Consent of instructor and departmental approval.

Taught: Annually, 1-4 semester credits.

## Greek

## 101, 102 HELLENISTIC GREEK

Kugler (Religious Studies)

Content: Beginning Hellenistic (Koine) Greek. Emphasis on basic vocabulary and grammar necessary to read the New Testament and other writings from the Hellenistic period. Introduction to the basics of New Testament textual criticism and exegesis. Elements of classical Greek covered late in the first semester, thereby preparing students to read Hellenistic and classical Greek texts at the 201 level. Conversational and modern Greek not covered. May be used to fulfill the foreign languages requirement.

Prerequisite: None. Must be taken in sequence. Taught: Alternate years, 4 semester credits each.

#### 201 READINGS IN HELLENISTIC AND CLASSICAL GREEK

Kugler (Religious Studies)

Content: Readings in the religious and secular literature of the Hellenistic and classical periods. May be used to fulfill the foreign language requirement.

Prerequisite: Greek 102 or consent of instructor. Taught: Alternate years, 4 semester credits.

## 298 ANCIENT GREEK LITERATURE AND CULTURE

Smith (Philosophy)

Content: General interdisciplinary introduction to ancient Greek culture. Broad focus on the conceptions and representations of virtue and beauty in poetry, theatre, philosophy, religion, art, and architecture. Interests specific to the texts and artifacts also discussed.

Prerequisite: None.

Taught: Once only, 4 semester credits.

## Hispanic Studies

## 101, 102 BEGINNING SPANISH

Benenati, Woodrich, Staff

Content: Basic vocabulary and structural patterns of Spanish, including all verb tenses in the indicative and subjunctive moods. Aspects of Hispanic culture. Practice in using the language: oral comprehension and development of skills in speaking, reading, writing Spanish. Interactive learning center for individual student practice.

Prerequisite: None. Must be taken in sequence. Taught: Annually, 4 semester credits each.

## 112 ACCELERATED BEGINNING SPANISH

Nvoka, Staff

Content: Combination of Spanish 101 and 102, meeting five times weekly. Intensive language instruction for students with little or no prior study of Spanish who wish to complete their foreign language requirement in two semesters. Basic vocabulary and structural patterns of Spanish. Aspects of Hispanic culture. Practice in using the language; oral comprehension and development of skills in speaking, reading, writing Spanish. Interactive learning center for individual student practice.

Prerequisite: None.

Taught: Annually, 6 semester credits.

## 201, 202 Intermediate Spanish

Benenati, Flori, Woodrich, Staff

Content: Study of grammar, vocabulary, culture, and civilization. Drills and activities to develop conversational skills. Short compositions and group presentations based on selected cultural readings. Interactive learning center for student practice.

Prerequisite for 201: Spanish 102, 112 or equivalent, or placement exam. Must be taken in sequence.

Prerequisite for 202: Spanish 201, 201A or equivalent, or placement exam. Must be taken in sequence.

Taught: Annually, 4 semester credits each.

## 201A INTERMEDIATE SPANISH

Nvoka

Content: Study of grammar, vocabulary, culture, and civilization. Drills and activities to develop conversational skills. Short compositions and group presentations based on selected cultural readings. Interactive learning center for student practice.

Prerequisite: Spanish 102, 112, or equivalent, or placement exam.

Taught: Annually, 4 semester credits.

#### 230 HISPANIC LITERATURE IN TRANSLATION

Woodrich

Content: Major works of Latin American narrative literature, with emphasis on authors who treat relevant social, political, historical, or cultural issues. Topics vary from year to year. Taught in English; no background in Spanish language or Hispanic literature required.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 251, 252 Intermediate Conversational Spanish

Staff

Content: Development of speaking and listening skills. Topics of conversation and sources of new vocabulary, idioms, sentence patterns found in newspapers, magazines, videos. Two sections per semester; students may be assigned by level of proficiency.

Prerequisite: Spanish 201.

Taught: Annually, 2 semester credits each. Both courses may be taken twice for credit or taken in sequence for a maximum of 4 credits.

## 261, 262 ADVANCED CONVERSATIONAL SPANISH

Content: Development of advanced speaking and listening skills. Topics of conversation and sources of new vocabulary, idioms, sentence patterns found in newspapers, magazines, videos. Two sections per semester.

Prerequisite: Spanish 202.

Taught: Annually, 2 semester credits each. Both courses may be taken twice for credit or taken in sequence for a maximum of 4 credits.

## 301 Spanish Composition and Conversation

Flori, Toledano, Woodrich

Content: Oral expression, idiomatic usage, and creative and expository writing with advanced grammar review. Readings, discussions, and compositions based on selections from Hispanic culture and literature, magazines, videos, materials from the Internet. Emphasis on developing proficiency in spoken and written

Prerequisite: Spanish 202 or equivalent, or placement exam.

Taught: Annually, 4 semester credits.

## 321 Spanish Prose and Written Expression

Flori, Toledano, Woodrich

Content: Advanced work in syntax and composition including explication of literary texts. Literary analysis and compositions based on selected readings from Spanish and Latin American literature.

Prerequisite: Spanish 301 or equivalent. Taught: Annually, 4 semester credits.

## 380 Major Periods in South American Literature

Flori, Toledano, Woodrich

Content: Introduction to major trends in South American literature from the pre-Columbian period to the present. Selected works from the Southern Cone and the Andes read in the context of cultural and historical events.

Prerequisite: Spanish 321 or consent of instructor.

Taught: Annually, 4 semester credits.

## 390 Major Periods in Mesoamerican and Caribbean Literature

Flori, Toledano, Woodrich

Content: Introduction to major trends in Mexican and Caribbean literature from the pre-Colombian period to the present. Selected works of literature read in the context of cultural and historical events.

Prerequisite: Spanish 321 or consent of instructor.

Taught: Annually, 4 semester credits.

## 410 Major Periods in Spanish Literature

Flori, Toledano, Woodrich

Content: Introduction to the literature and culture of Spain in the context of the historical background. Major trends in Spanish literature. Readings of selected texts by writers representative of major periods of literary history. Prerequisite: Spanish 380 or 390.

Taught: Annually, 4 semester credits.

## 440 Topics in Hispanic Literatures

Flori, Toledano

Content: Study of a genre, a literary movement, or a topic in Hispanic

literatures (Peninsular and/or Latin American, or U.S. Latino). Extensive oral and written work culminating in a research paper written and presented in Spanish.

Prerequisite: Spanish 380 or 390.

Taught: Annually, 4 semester credits. May be repeated for credit with change of topic.

#### 444 SPANISH PRACTICUM

Flori, Toledano, Woodrich

Content: Independent work under faculty supervision on a project dealing with the Hispanic community. Details of content, evaluation, title, and academic credit determined by student in consultation with faculty member.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

## 450 SPECIAL TOPICS

Flori, Toledano

Content: Special topics or issues of Hispanic literature and culture. Students research materials and draw on overseas experiences to focus on a particular topic. Extensive oral and written work culminating in a research paper written and presented in Spanish.

Prerequisite: Spanish 380 or 390.

Taught: Annually, 4 semester credits. May be repeated for credit with change of topic.

#### **490 Honors Thesis**

Flori, Toledano, Woodrich

Content: Independent research project suitable for granting departmental honors. Details determined by student in conference with supervising faculty member.

Prerequisite: Consent of instructor and departmental approval.

Taught: Annually, 1-4 semester credits.

## Japanese

## 101, 102 BEGINNING JAPANESE

Deeter, Suttmeier

Content: Introduction to and development of basic language skills with emphasis on overall communication proficiency. Vocabulary, sentence structure, aural comprehension. Ability to function in everyday-life situations in Japan. Contemporary Japanese culture introduced in context of language

Prerequisite: None. Must be taken in sequence.

Taught: Annually, 4 semester credits each.

## 201, 202 Intermediate Japanese

Deeter, Suttmeier, Staff

Content: Continuing work on basic language skills. Oral and written exercises, mastery of more complex sentence structures, expanding vocabulary. Contemporary Japanese culture introduced in context of language learning.

Prerequisite: Japanese 102 or equivalent. Must be taken in sequence.

Taught: Annually, 4 semester credits each.

## 230 Introduction to Japanese Literature in Translation

Suttmeier

Content: Themes central to Japanese literature. English translations mainly of 20th-century fiction. Lectures, discussions, student essays, and supplementary background readings on broader social, cultural, and historical contexts of Japanese literature. Taught in English; no background in Japanese language or literature required.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 251, 252 Japanese Conversation

Masuda

Contents: Expansion of vocabulary and idioms, polishing pronunciation, and correcting faulty grammar through oral drills and exercises. Students improve their listening comprehension through audio and video materials and develop confidence in using the language through guided discussions based on brief readings, tapes, films, or assigned current topics.

Prerequisite: Japanese 201 or consent of instructor.

Taught: Annually, 2 semester credits each. Both courses may be taken twice for credit or taken in sequence for a maximum of 4 credits.

## 290 Topics in Japanese Literature in Translation

Suttmeier

Content: English translations focusing on literary genre (poetry, prose, fiction, drama), period (medieval, premodern, modern, contemporary), and/or theme (aesthetics, storytelling, nature, community, power, gender, sexuality). Lectures, discussions, student essays, and background readings on literary, cultural, historical, philosophical, religious, and social background of works studied. Topics vary from year to year. Taught in English; no background in Japanese language or literature required.

Prerequisite: None.

Taught: Alternate years, 4 semester credits. With consent of instructor, may be taken twice for credit.

## 310 Readings and Composition in Japanese

Deeter, Suttmeier

Content: Oral expression, listening comprehension, reading, writing. Expository and creative writing, syntax, idiomatic usage emphasized to promote fluency. Review and consolidation of grammar and vocabulary learned in previous years, expansion of structural and idiomatic command. Readings in increasingly natural Japanese, including contemporary short stories and current newspaper and magazine articles. Short oral presentations, compositions, other exercises to build general language proficiency.

Prerequisite: Japanese 202 or equivalent, or consent of instructor. Taught: Annually, 4 semester credits. With consent of instructor, may be taken twice for credit.

## 320 READINGS AND COMPOSITION IN JAPANESE II

Deeter, Suttmeier

Content: Continued language study based on readings that address topics of cultural interest such as education, work, family, moral and intellectual values, history, popular culture, and current social issues. Emphasis on improving students' ability to read and write Japanese. Content varies from year to year.

Prerequisite: Japanese 202 or equivalent, or consent of instructor. Japanese 310 recommended.

Taught: Annually, 4 semester credits. With consent of instructor, may be taken twice for credit.

## 410 ADVANCED READINGS IN JAPANESE: SOCIETY AND CULTURE

Deeter, Suttmeier

Content: Advanced readings in Japanese to familiarize students with a range of written styles. Emphasis on vocabulary, reading, writing, and new kanji.

Excerpts from contemporary works, including newspaper and magazine articles, short stories, literary essays, as well as works analyzing Japanese society, culture, and customs. Expository and creative writing exercises. Topics vary from year to year.

Prerequisite: Japanese 320 or equivalent, or consent of instructor.

Taught: Annually, 4 semester credits. With consent of instructor, may be taken twice for credit.

## 420 ADVANCED READINGS IN JAPANESE: FICTION AND NONFICTION

Deeter, Suttmeier

Content: A continuation of advanced language study based on readings in Japanese prose. Emphasis on vocabulary, reading, writing, and expansion of kanji. Excerpts from contemporary works, including novels, poems, and short stories, as well as newspapers, magazines, essays, and other nonfiction works. Mastery of advanced grammer through short writing assignments and term papers. Topics vary from year to year.

Prerequisite: Japanese 320 or equivalent.

Taught: Annually, 4 semester credits. With consent of instructor, may be taken twice for credit.

## 444 Japanese Practicum

Deeter, Suttmeier

Content: Advanced Japanese language students lead beginning and intermediate students in conversation groups and in discussions of Japanese culture, including instructional films.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

## 490 Honors Thesis

Suttmeier

Content: Independent research project suitable for granting departmental honors. Details determined by student in conference with supervising faculty

Prerequisite: Consent of instructor and departmental approval.

Taught: Annually, 1-4 semester credits.

## Russian

## 100 Russian Culture: Imperial to Post-Soviet Russia

Osipovich

Content: Development of Russian intellectual and cultural ideas during the 19th and 20th centuries, beginning with the late Imperial period, which saw the flourishing of literature, music, and architecture and was followed by the fin-de-siecle renaissance in philosophy, poetry, avant-garde theatre, and art. Overview of the Revolutionary culture of the early 1920s and the establishment of Socialist Realism as the compulsory artistic method. Analysis of the major artistic and intellectual trends of the post-Soviet period. Lectures, class discussion, and the presentation of slides, video clips, music recordings, films, and Internet. No knowledge of Russian required.

Prerequisite: None. Course is taught in English. Taught: Alternate years, 4 semester credits.

## 101, 102 BEGINNING RUSSIAN

Osipovich, Seifer

Content: Fundamentals of Russian language through speaking, listening, reading, writing. Basic vocabulary and grammatical structures practiced orally and in writing. Correct pronunciation and usage in practical conversation and simple composition. Aspects of traditional and contemporary Russian culture and life.

Prerequisite: None. Must be taken in sequence. Taught: Annually, 4 semester credits each.

## 201 Intermediate Russian

Osipovich, Seifer

Content: Active language skills and review and continuation of grammar. Short stories read and discussed. Writing of compositions using new vocabulary and structure. Traditional and contemporary Russian culture.

Prerequisite: Russian 102 or equivalent. Taught: Annually, 4 semester credits.

## 210 Russian Conversation

Osipovich, Seifer

Content: Development of speaking and listening skills. Vocabulary expansion and idiomatic usage. Topics of conversation and new vocabulary based on student interest.

Prerequisite: Russian 102.

Taught: Annually, 2 semester credits.

#### 230 Introduction to Russian Literature in Translation

Osipovich

Content: Introduction to Russian literature's greatest writers and thinkers including Gogol, Tolstoy, Dostoevsky, Chekhov, Bunin, Pasternak, Bulgakov. Close textual analysis; literary structures and forms; thematic content.

Relationship between style and structure. Themes, genres, historical context, social and ethical issues. Taught in English; no background in Russian language or literature required.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

#### 252 Russian Conversation

Seifer

Content: Practice in spoken Russian on selected topics. Improving proficiency by expanding vocabulary and employing idioms and correct grammar. Topics based on current events and student interest.

Prerequisite: Russian 201 or consent of instructor.

Taught: Annually, 2 semester credits. May be taken twice for credit.

## 270 RUSSIAN LIFE AND LANGUAGE

Osipovich, Seifer

Content: Development of communication skills in Russian through guided discussions of short readings and audio and video materials. Expansion of vocabulary and improvement of cultural proficiency in areas of contemporary Russian life, such as personal interests, recreation, family, health, education,

business, and travel.

Prerequisite: Russian 201 or equivalent from Russia overseas program.

Taught: Annually, 4 semester credits.

## 290 Topics in Russian Literature in Translation

Osipovich

Content: Major aspects, authors, genres, periods such as the Russian novel, 20th-century Russian literature, contemporary Russian prose. Topics vary from year to year. Taught in English; no background in Russian language or literature required. 2002 topic: 20th-century Russian literature and film.

(Previous topics: Russian fairy tales, Tolstoy, Dostoevsky.)

Prerequisite: None.

Taught: Alternate years, 4 semester credits. With consent of instructor, may be taken twice for credit.

## 330 Readings and Conversation in Russian

Osipovich, Seifer

Content: Development of reading and speaking skills at the postintermediate level. Introduction to the language of the Russian press. Learning reading techniques and strategies, expanding vocabulary, and improving ability to discuss social and cultural issues of contemporary society. Topics may include education, the arts, religion, crime, economy, ecology, gender roles, other social issues.

Prerequisite: Russian 270 or equivalent. Taught: Annually, 4 semester credits.

## 350 Topics in Russian Society and Culture

Osipovich, Seifer

Content: Introduction to important social and cultural issues in contemporary Russia including moral and intellectual values, social inequality, popular culture, political structure, and current events. Advanced language study based on readings of Russian news articles and short selections of Russian fiction, viewing television clips and feature films, exploring Russian Internet resources. Prerequisite: Russian 330 or equivalent.

Taught: Annually, 4 semester credits.

## 444 Russian Practicum

Osipovich, Seifer

Content: Independent work under faculty supervision on a project dealing with the Russian community. Advanced Russian language students may also lead beginning and intermediate students in discussions of Russian culture.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

## 490 Honors Thesis

Osipovich

Content: Independent research project suitable for granting departmental honors. Details determined by student in conference with supervising faculty member.

Prerequisite: Consent of instructor and departmental approval.

Taught: Annually, 1-4 semester credits.

## Gender Studies

## DIRECTOR: NICOLE AAS-ROUXPARIS

Gender studies is an interdisciplinary field that examines the biological, social, and cultural construction of femininity and masculinity, and the ways men and women locate themselves within gender systems. Gender defines relationships among women, among men, and between men and women. It interacts with factors such as race and class, and it structures the activities into which women and men enter in all aspects of life.

Building on Lewis & Clark's commitment to gender issues and gender balance across the curriculum, the College offers a program in this relatively new field of study. Lewis & Clark's Gender Studies Program, the first of its kind in the country, has received national recognition. It provides a continuing resource for integration of gender throughout the curriculum and also enables students to explore these crucial areas of human concern directly and in depth through an interdisciplinary minor in gender studies. The program identifies resources, gathers information, develops programs, sponsors an annual symposium, and serves as a catalyst for change that should be of equal concern to men and women.

#### THE MINOR PROGRAM

The interdisciplinary minor in gender studies examines the relationship between biological differences and social inequality, explores the construction of sexual identity, and analyzes the variations in gender systems that have occurred across cultures and over time. It illuminates the images of femininity and masculinity that shape cultural representations and explores similarities and differences in men's and women's artistic expression. Courses take gender as a subject of focus and investigate how gender interacts with race, class, and culture. The College's internationalized curriculum and overseas study programs make it possible for students to examine the intersections of gender, race, and class in a variety of cultures. Finally, the minor engages students in the political and philosophical exploration of strategies for transforming coercive and unequal gender systems and enhancing individual choice and our common humanity.

## MINOR REQUIREMENTS

A minimum of 24 semester credits, distributed as follows:

- 1) Gender Studies 200, 231, 300, 440.
- 2) Eight semester credits selected from a list of approved electives available annually from the program director and on the program Web site.

At least 16 semester credits must be discrete to the minor (may not be used in any other set of major or minor requirements). In addition, at least four of the courses for the minor must be taken at Lewis & Clark.

#### SPONSORING FACULTY

Nicole Aas-Rouxparis, associate professor of French. Linda Isako Angst, assistant professor of anthropology. Stephanie K. Arnold, professor of theatre. Jane Monnig Atkinson, professor of anthropology. Dorothy W. Berkson, professor of English. Andrew Bernstein, assistant professor of history. John F. Callahan, Morgan S. Odell Professor of Humanities. Cecilia Chessa, assistant professor of political science. Mary Clare, professor of counseling psychology.

Janet E. Davidson, associate professor of psychology.

Anne Dawid, professor of English.

Jerusha Detweiler-Bedell, assistant professor of psychology.

Dinah Dodds, professor of German.

Mónica Flori, professor of Spanish.

John M. Fritzman, associate professor of philosophy.

Susan Glosser, associate professor of history.

Robert Goldman, professor of sociology.

Deborah Heath, associate professor of anthropology.

Jane H. Hunter, professor of history.

Curtis N. Johnson, Dr. Robert B. Pamplin Jr. Professor of Government.

Susan Kirschner, senior lecturer in humanities.

Jean M. Ward, professor of communication.

Benjamin W. Westervelt, associate professor of history.

Kristi Williams, instructor in English.

Phyllis A. Yes, professor of art.

Elliott Young, associate professor of history.

Rishona Zimring, associate professor of English.

## 200 Women and Men in American Society

Hunter, Ward, Staff

Content: The gender system in contemporary American society. Contemporary debates considering biological bases for sex differences in reproductive functions and in physical, sexual, and psychological development. Socialization into masculine and feminine identities, sexual and reproductive choices, the relationship between family and career, occupational segregation and wage differentials, housework and consumption, participation in public life. Interactions among gender, class, and race. Situations of middle-class and working-class people and members of dominant and minority racial groups. Feminist thought applied to current problems; alternative approaches to their solution. An introductory course intended for sophomores and second-semester first-year students.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 231 GENDER IN CROSS-CULTURAL PERSPECTIVE

Angst, Heath, Staff

Content: Gender—how maleness and femaleness are defined—as it has been socially, culturally, and historically constituted in different times and places. Theoretical developments in the anthropology of gender. Cross-cultural exploration using examples from a wide range of societies, past and present. The relationship between cultural definitions of gender and the social experience of women and men.

Prerequisite: Sociology/Anthropology 100 or 110 or sophomore standing. Taught: Annually, 4 semester credits.

## 300 GENDER AND AESTHETIC EXPRESSION

Arnold, Berkson, Staff

Content: Forms of female and male expression in the arts and humanities. Questions such as the existence of feminine and masculine forms, voices, symbolic systems; the possibility of a feminist aesthetic. Feminine expression through diaries, quilts, folk art examined alongside more traditional masculine forms such as essays and sculpture. Ways women and men have used the same forms, such as poetry, fiction, film, painting. Materials drawn from literature,

the arts, religion.

Prerequisite: One course in humanities or arts and junior standing.

Taught: Annually, 4 semester credits.

#### 440 FEMINIST THEORY

Fritzman, Staff

Content: Philosophical and political analysis of issues in feminist theory. Discussion of recent theoretical work (e.g., Butler, Mitchell) in relation to past feminist thinking (e.g., Wollstonecraft, Gilman, deBeauvoir). A problemoriented approach that explores feminist theorizing about such topics as sex, gender, race, power, oppression, identity, class, and difference.

Prerequisite: One course in gender studies and junior standing.

Taught: Annually, 4 semester credits.

#### 444 PRACTICUM

Staff

Content: Development and execution of extensive projects relating to gender issues in organizational settings. Placement in community-based social and educational agencies concerned with gender-related problems, such as employment discrimination, rape, sexual harassment and abuse, reproductive rights, freedom of sexual identity, the law and public policy, political organization.

Prerequisite: Declared gender studies minor, one gender studies course, consent of program director and faculty sponsor.

Taught: Each semester, 1-4 semester credits, credit-no credit.

#### 499 INDEPENDENT STUDY

Staff

Content: Independent, student-designed research project supervised by a faculty member with expertise in the topic or methodology of the project. Prerequisite: Declared gender studies minor, junior standing, consent of program director and faculty sponsor.

Taught: Each semester, 1-4 semester credits.

## Geological Science

## COORDINATOR: ELIZABETH B. SAFRAN

Earth is a laboratory in which grand experiments in physics, biology, and chemistry unfold and interact. Perched on the Pacific rim, Lewis & Clark College is nestled in the crucible itself, surrounded by spectacular evidence of the behavior and functioning of our home planet. From the blasted remains of Mount St. Helens to the flood-gouged Columbia River Basalts, the landscapes of the Pacific Northwest provoke us to ask ourselves, "Why did this happen? When?" Geological science addresses itself to these questions. At Lewis & Clark, geology courses are designed to provide students with a basic understanding of major Earth processes while emphasizing environmental implications and regional issues.

Training in geological science enhances understanding of critical environmental problems, an invaluable asset for natural scientists, consultants, environmental lawyers, teachers, and all citizens. It also heightens appreciation for natural settings by illuminating the fascinating ways in which they evolve.

#### SPONSORING FACULTY

Elizabeth B. Safran, assistant professor. Geomorphology.

#### 150 Environmental Geology

Safran

Content: Introduction to major geological processes that impact human activity. Emphasis on regional issues. Plate tectonics, loci of seismic and volcanic activity, distribution of mountain ranges, and sediment sources. Floods, landslides, mudflows, tsunamis. Assessment of anthropogenic shifts in landscape functioning. Consequences of standard logging practices, dams, channel modification. Chronic versus catastrophic environmentally significant events. Lecture and laboratory. Weekly laboratory includes two required daylong field trips, held on weekends.

Prerequisite: Mathematics 055. Taught: Annually, 5 semester credits.

## 280 THE FUNDAMENTALS OF HYDROLOGY

Safran

Content: An analysis of the behavior and movement of water in natural and modified environments. Major components of the hydrologic cycle, including precipitation, interception, evaporation, evapotranspiration, runoff, and groundwater. Introduction to river channel behavior, flood hazard calculation, and water supply issues. Quantification, through measurements and calculations, of water fluxes through various pathways, with allusion to planning applications. Laboratory work focuses on field and modeling projects. Lecture and laboratory.

Prerequisite: Geology 150.

Taught: Alternate years, 5 semester credits.

## History

#### CHAIR: SUSAN GLOSSER

The Department of History seeks to ground students in the foundations of the human experience. It introduces them to cause-and-effect relationships in human affairs, and encourages them to understand the power and the complexity of the past in shaping the contemporary human condition. Departmental courses probe American, Latin American, European, and Asian history and address such topics as popular culture; the nature of ideology; social and political change; economic systems; migration; and the roles of race, gender, religion, and ethnicity.

The department stresses the use of primary sources and the honing of research methods, clear writing, and analysis. Students are expected to grow in their breadth of knowledge, skills in finding information, and the ability to think clearly as they discuss and interpret past events.

#### THE MAJOR PROGRAM

The department curriculum focuses on three primary subject fields: Asian, European, and American history. Students are strongly encouraged to enroll in the introductory sequences as a foundation for more advanced study in these concentrations. History majors are required to complete some work in each of

the three fields and to obtain a breadth of historical understanding. Most introductory sequences are offered at the 100 level. The entry-level U.S. sequence (History 230A, 230B, 230C) is offered at the 200 level and is open to first-year students.

The department counsels students to take courses in related fields of language, literature, fine arts, social sciences, and international affairs to deepen their subject concentration.

## MAJOR REQUIREMENTS

A minimum of 40 semester credits (10 courses), distributed as follows:

- 1) History core courses: History 300, 400, 450.
- 2) Seven other history courses distributed as follows: a) At least one of the seven from each of the three departmental concentrations: Asia; Europe; Americas, North and South. The Asian requirement may be fulfilled by taking courses in East Asia (China and Japan), Southeast Asia, South Asia (India and Pakistan), and Asia Minor (the Middle East). History 218, Perspectives on the Vietnam War, may be counted in either the Asian or American concentration. History 328, The British Empire, is in the European concentration. **b**) At least one of the seven courses in premodern Asian, European, or Latin American history: History 110, 120, 141, 210, 215, 221, 227, 320, 324; Religious Studies 251, 373. c) At least two of the seven courses at the 300 level in addition to History 300. History 444 not included. d) Optional: Maximum of 4 semester credits of 244/444 practicum. e) The following courses may count toward the 10 history courses required for the major:

Economics 255, Economic History: Preindustrial Europe

Economics 256, Economic History: Industrial Revolution

English 298, The Literature and History of the 1960s

Religious Studies 251, History and Thought of Western Religion: Medieval Religious Studies 253, Witches, Prophets, and Preachers: Religion in

American History to the Civil War

Religious Studies 254, Religion in Modern America, 1865 to Present

Religious Studies 340, Women in American Religious History

Religious Studies 373, The Reformation in Social Perspective

(See the department listings for course descriptions.)

## MINOR REQUIREMENTS

A minimum of 24 semester credits (six courses), distributed as follows:

- 1) Two history core courses: History 300, and 400 or 450.
- 2) At least one course from each of two of the departmental concentrations listed under Major Requirements.
- **3)** At least one course at the 300 level in addition to History 300.

#### PRACTICUM PROGRAM

Because history is useful in a variety of careers, the department encourages students in the junior or senior year to participate in a practicum. History practica have placed students in a variety of settings including the museum and library of the Oregon Historical Society, publishing companies, land-useplanning agencies, historic preservation organizations, and other enterprises needing the skills of a person knowledgeable in the liberal arts.

The practicum is an off-campus experience designed by the student in conjunction with an off-campus supervisor and a faculty supervisor according to departmental guidelines. Arrangements on and off campus must be made with the appropriate supervising persons in the semester prior to enrollment.

#### **Honors**

Each year the department invites meritorious students to participate in the honors program. Students choose a faculty member with whom they want to work on a research project. The program may involve a major paper based on primary source materials or an extensive review and evaluation of the secondary literature in a particular subject area. Students present the project to the department. Following an oral examination, the department determines whether to grant honors on graduation.

## RESOURCES FOR NONMAJORS

All of the department's course offerings are open to nonmajors. Preference is given to majors and minors for enrollment in Historical Materials, the Reading Colloquium, and the History Seminar.

#### FACULTY

Stephen Dow Beckham, Dr. Robert B. Pamplin Jr. Professor of History. U.S. history, American West, American Indians, Pacific Northwest.

Andrew Bernstein, assistant professor. Japanese history.

David Campion, assistant professor. British, South Asian history.

Emily Clark, lecturer. Atlantic world, Colonial America.

Susan Glosser, associate professor. Chinese history.

Jane H. Hunter, professor. U.S. history, post-Civil War, women's history.

Matthew B. Levinger, associate professor. Modern European history.

Michael Mooney, professor. European and American intellectual history. Benjamin W. Westervelt, associate professor. Medieval and Renaissance European history.

Elliott Young, associate professor. Latin America.

#### 110 Early East Asian History

Staff

Content: Early histories of China and Japan from earliest origins to the 13th century. Prehistory; early cultural foundations; development of social, political, and economic institutions; art and literature. Readings from Asian texts in translation. The two cultures, covered as independent entities, compared to each other and to European patterns of development.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 111 Making Modern China

Glosser

Content: Key events and institutions in China from the 13th to the 20th century through primary sources (philosophical and religious texts, vernacular fiction, contemporary accounts and essays, translated documents). Social and familial hierarchies, gender roles, imperialism, contact with the West, statesociety relations, nationalism, modernization.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

#### 112 MAKING MODERN JAPAN

Bernstein

Content: History of Japan from the first of the Tokugawa shogunate to the end of the 20th century. Tokugawa ideology, political economy, urban culture; intellectual and social upheavals leading to the Meiji Restoration; the Japanese response to the West; rapid industrialization and its social consequences; problems of modernity and the emperor system; Japanese colonialism and militarism; the Pacific war; postwar developments in economy, culture, politics. Prerequisite: None.

Taught: Alternate years, 4 semester credits.

#### 120 Early European History

Westervelt

Content: Social, intellectual, political, and economic elements of European history, 800 to 1648. Role of Christianity in the formation of a dominant culture; feudalism and the development of conflicts between secular and religious life. Contacts with the non-European world, the Crusades, minority groups, popular and elite cultural expressions. Intellectual and cultural life of the High Middle Ages, secular challenges of the Renaissance, divisions of European culture due to the rise of national monarchies and religious reformations.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 121 MODERN EUROPEAN HISTORY

Levinger

Content: Social, intellectual, political, and economic elements of European history, 1648 to 1989. The scientific revolution, Enlightenment, national political revolutions, capitalism, industrial development, overseas imperial expansion. The formation of mass political and social institutions, avant-garde and popular culture, the Thirty Years' War of the 20th century, bolshevism, fascism, the Cold War, and the revolutions of 1989.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 141 COLONIAL LATIN AMERICAN HISTORY

Content: History of Latin America from Native American contact cultures through the onset of independence movements in the early 19th century. Cultural confrontations, change, and Native American accommodation and strategies of evasion in dealing with the Hispanic colonial empire.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 142 MODERN LATIN AMERICAN HISTORY

Young

Content: Confrontation with the complexity of modern Latin America through historical analysis of the roots of contemporary society, politics, and culture. Through traditional texts, novels, films, and lectures, exploration of the historical construction of modern Latin America. Themes of unity and diversity, continuity and change as framework for analyzing case studies of selected countries.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 209 JAPAN AT WAR

Bernstein

Content: In-depth study of the causes, dynamics, and outcomes of the wars fought by Japan in Asia and the Pacific from the late 19th century through World War II. The trajectories of Japanese imperialism, sequence of events leading to the attack on Pearl Harbor, social impact of total war. Japan's wartime culture as seen through diaries, newspaper articles, propaganda films, short stories, government documents. Short- and long-term effects of the atomic bomb and the American occupation of Japan.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 210 CHINA'S GOLDEN AGE (TANG AND SONG)

Content: The Tang and Song dynasties, 7th to the 13th century. Transition from one dynasty to the next. Changes in the elite classes, transformation of women's roles, rulership and landholding, philosophical developments, aesthetic expression. How these developments defined the issues and set the context for China's contact with the West and its emergence into the modern world. Literature, religious texts, art, dress, biographies, and political and philosophical essays.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 211 REFORM, REBELLION, AND REVOLUTION IN MODERN CHINA Glosser

Content: The commercial revolution of the 12th century and the cultural flowering and political structures of Ming and early Qing dynasties (1367– 1800) that shaped China's response to Western invasion. Major peasant rebellions, elite reforms, and political revolutions of the last 150 years including the Opium War, Taiping Rebellion, Hundred Days Reform, Boxer Rebellion, collapse of the Qing dynasty, Nationalist and Communist revolutions. Primary sources including philosophical treatises, imperial edicts, literature, Communist propaganda.

Prerequisite: None. History 111 recommended. Taught: Alternate years, 4 semester credits.

## 213 CHINESE HISTORY THROUGH BIOGRAPHY

Content: Political, economic, and cultural history of China, traced through the lives of individual Chinese, including the mighty and the low: venerable philosophers and historians, powerful women, mighty emperors, conscientious officials, laboring women and men, evangelizing missionaries, zealots of all political persuasions. Sixth century B.C.E. to late 20th century, with emphasis on the 19th and 20th centuries. Lectures cover the historical milieu in which the various subjects lived. Through class discussion and essay assignments, students unite their knowledge of particular individuals and the broad sweep of events to form a rich and lively familiarity with Chinese history.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

#### 214 SOUTHEAST ASIAN HISTORY

Staff

Content: Modern history of southeast Asia, comprising the present-day nations of Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. Emphasis on sociopolitical and cultural evolution of the area rather than on imperial encroachments. Close examination of literary, religious, kingly, and peasant traditions and their contemporary manifestations.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

#### 215 CULTURE AND POLITICS IN JAPAN TO 1600

Bernstein

Content: History of Japan from earliest times to Tokugawa Ieyasu's victory at Sekigahara. Cultural foundations; mythology; literature; aesthetics; religion; philosophy; key economic, social, political institutions. The production of and relationship between culture and politics in premodern Japan.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 217 THE EMERGENCE OF MODERN SOUTH ASIA

Campion

Content: The social, economic, and political history of the Indian subcontinent from the 18th century to the present. The cultural foundations of Indian Society; the East India Company and the expansion of British power; the experience of Indians under the British raj; Gandhi and the rise of Indian nationalism; independence and partition; postcolonial South Asian developments in politics, economy, and culture. Thematic emphasis on the causes and consequences of Western imperialism, religious and cultural identities, and competing historical interpretations.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 218 Perspectives on the Vietnam War

Staff

Content: A broadly humanistic and introductory perspective on the problem of the Vietnam War. Root causes of the war from Vietnamese and American perspectives; the nature of the war as it developed and concluded. The war as a problem in American domestic politics.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 221 TUDOR AND STUART BRITAIN, 1485-1688

Campion

Content: The development of the British Isles from the late medieval period to the Glorious Revolution. The church and state in late medieval Britain; the English and Scottish reformations; Elizabeth and her realm; the evolution of monarchical and aristocratic power under the Tudors and Stuarts; Shakespeare, Milton, and the English literary renaissance; the conquest and settlement of Ireland; Cromwell, the Puritans, and the English Civil War; life in the villages and the growth of the mercantile economy; the Glorious Revolution and the shaping of constitutional monarchy.

Prerequisite: None. History 121 recommended.

Taught: Annually, 4 semester credits.

## 222 Britain in the Age of Revolution, 1688–1815

Campion

Content: A history of Britain and its people from the Glorious Revolution to the end of the Napoleonic War. The end of absolutism and the rise of the constitutional monarchy; the Augustan Age: arts, letters, and religion; the Atlantic world and British overseas expansion; the Enlightenment and scientific revolution; the American Revolution and its aftermath; union with Scotland and Ireland and the creation of the British national identity; the revolution in France and the wars against Napoleon; the beginnings of the Industrial Revolution.

Prerequisite: None. History 121 recommended.

Taught: Annually, 4 semester credits.

## 224 THE MAKING OF MODERN BRITAIN, 1815 TO PRESENT

Content: The history of Britain from the Industrial Revolution to the present. Industrialization and its social consequences; the shaping of Victorian society; the rise and fall of the British Empire; the Irish question and the emancipation of women; political reform and the rise of mass politics; Britain in the age of total war; popular culture, immigration, and the making of multicultural Britain. Themes include the growth of the social and economic class structure, the shaping of national and regional identities, and cultural exchanges with the empire. Extensive use of primary sources, literature, and music.

Prerequisite: None. History 121 recommended.

Taught: Annually, 4 semester credits.

## 225 EUROPE IN THE AGE OF THE FRENCH REVOLUTION

Levinger

Content: Social, economic, and intellectual origins of the revolution of 1789: major developments in France; the spread of revolution to the remainder of Europe. European responses to the threat of revolution, defeat of the Napoleonic armies, the attempt to return to normalcy after 1815.

Prerequisite: None. History 121 recommended. Taught: Alternate years, 4 semester credits.

#### 226 20th-Century Germany

Levinger

Content: Origins and consequences of World War I; attempts to develop a republican government; Nazism; evolution of the two Germanies after 1945 and their reunification. Readings on relationship between individual and state, pressures for conformity, possibility of dissent.

Prerequisite: None. History 121 recommended. Taught: Alternate years, 4 semester credits.

## 227 MEDIEVAL EUROPE, 800-1400

Westervelt

Content: Social, intellectual, political, and cultural elements of European life during the period from about 800 to 1400. Emphasis on Christianity as a dominant aspect of public life; feudalism and other forms of economic and social life; developing conflicts between secular and ecclesiastical institutions; emergence of European nation-states; contacts with the non-European world; high medieval culture.

Prerequisite: History 120.

Taught: Alternate years, 4 semester credits.

## 228 MIDDLE EAST IN MODERN TIMES

Powers (Religious Studies)

Content: The Middle East, its religious and cultural contributions, indigenous empires, and outside imperialists. The region's strategic significance as the connecting link to three continents. Effects on the region of the discovery of oil in the 20th century. The impact of nationalism on each nation's viability in the region, economic dilemmas, pressing national problems.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 229 THE HOLOCAUST IN COMPARATIVE PERSPECTIVE

Levinger

Content: The Nazi genocide of European Jews during World War II in comparison to other cases of 20th-century mass violence in countries such as Armenia, Cambodia, the former Yugoslavia, and Rwanda. Nazi Germany serves as the principal case study for discussion of the broader question: What has made possible the organization and execution of mass violence against specific ethnic and religious groups in a wide variety of societies around the world over

the past century? Includes examination of strategies for the prevention of future incidents of mass ethnic violence.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 230A United States: The Colonial Centuries, 1492–1788 Wheeler

Content: First course in U.S. history sequence. Cultural encounters between European settlers, Native Americans, and African slaves. Political, economic, and social patterns of colonial development in the north, middle colonies, south, and southwest. Imperial competition, Native American strategies of adaptation and resistance, development of economic and political systems, religious revival and the Age of Reason, sources of the American Revolution, the founding of the United States.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 230B UNITED STATES: THE NATIONAL CENTURY, 1789-1898 Beckham

Content: Second course in U.S. history sequence. How the young American nation coped with major changes and adjustments in its first century. Emergence of political parties; wars with Indians and Mexico, and expansion into a continental nation; the lingering problem of slavery; the rise of industry and urbanization; immigration; the development of arts and letters into a new national culture.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 230C United States: The Modern Century, 1898–1998

Staff

Content: Third course in U.S. history sequence. Expansion of the federal government and the birth of mass society. The founding and fortunes of the welfare state; imperialism, world wars, and globalization; conflicts over minority and women's rights and status; growth of cultural "modernism." Coverage of traditional topics (Progressivism, the New Deal, the Civil Rights movement, the Cold War) combined with a thematic approach and readings in primary and secondary sources.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 231A U.S. Women's History, 1600-1980

Content: The diverse experiences of American women from the colonial era to the recent past. Changing ideologies from the colonial goodwife to the cult of true womanhood. Impact of Victorianism, sexuality and reproduction, the changing significance of women's work. Origins of the women's rights movement, battles and legacy of suffrage, history of 20th-century feminism, competing ideologies and experiences of difference.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 233 HISTORY OF NEW YORK

Staff

Content: An overview of the urban history and urban structure of New York. Emphasis on examining the process of continuity and change of New York from the colonial period to the 20th century.

Prerequisites: None.

Taught: Annually, on New York program, 4 semester hours.

## 235 HISTORY OF THE PACIFIC NORTHWEST

Beckham

Content: Historical development of the Pacific Northwest over the past 200 years. Native American cultures, Euro-American exploration and settlement, fur trade, missions, overland emigration, resource development, the question of regionalism.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

# 242 Borderlands: U.S.-Mexico Border, 16th Century to Present

Content: Exploration of the concept and region known as the Borderlands from when it was part of northern New Spain to its present incarnation as the U.S.-Mexico border. Thematic focus on the roles of imperialism and capitalism in the formation of borderlands race, class, gender, and national identities. The transformation of this region from a frontier between European empires to a borderline between nations.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 244 PRACTICUM

Content: Experience in historical research, writing, interpreting, or planning. Specifics vary depending on placement with sponsoring agency.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits. Eight credits may be applied to graduation requirements.

## 298 THE ATLANTIC WORLD, 1500–1800

Clark

Content: The history of the Atlantic world from its antecedents in the 15th-century Portuguese sugar plantations of Madeira, worked by enslaved Africans, to its emergence as an international economic, political, and cultural system that drew on the combined human and natural resources of Africa, Europe, and the Americas. Major themes include slavery, race, labor, economy, colonialism, creolization, religion, and the natural and built environments. Prerequisite: None.

Taught: Once only (spring 2004), 4 semester credits.

## 298 HISTORY OF MEDICINE AND THE BODY

York

Content: The broader historiographical work on the body from the perspective of the history of dissection and anatomical studies on human and animal bodies in Western Europe from antiquity to the 20th century. Attitudes toward dead bodies in various periods of European history. The reasons why people believed that anatomical dissections of human cadavers were necessary and the cultural beliefs that made this practice difficult if not impossible. The connections between anatomical knowledge about the body and beliefs about race and gender in European society. Attention to depiction of human bodies and anatomical dissection scenes and the interactions between the development of naturalistic art forms and "scientific" illustration techniques.

Prerequisite: None.

Taught: Once only (fall 2003), 4 semester credits.

## 299 INDEPENDENT STUDY

Staff

Content: Opportunities for well-prepared students to design and pursue a substantive course of independent learning. Details determined by the student and the supervising instructor.

Prerequisite: Consent of instructor.

Taught: Each semester, 4 semester credits.

#### 300 HISTORICAL MATERIALS

Staff

Content: Materials and craft of historical research. Bibliographic method; documentary editing; use of specialized libraries, manuscripts, maps, government documents, photographs, objects of material culture. Career options in history. Students work with primary sources to develop a major editing project. Topical content varies depending on instructor's teaching field. Prerequisite: Junior standing or consent of instructor.

Taught: Two or three seminars per year, 4 semester credits each. May be taken twice for credit. Enrollment preference given to history majors and minors.

## 310 CHINA DISCOVERS THE WEST: SILK, JESUITS, TEA, OPIUM, AND MILK

Glosser

Content: The nature and extent of China's contact with other countries, including the silk roads to Middle Asia in the first millennium B.C.E., Jesuits and the influx of Spanish-American silver in the 16th century, British tea and opium trade, and Chinese intellectual experiments with social Darwinism, anarchism, communism, and the nuclear family ideal. Primary sources showing foreign and Chinese perceptions of the content and significance of these exchanges.

Prerequisite: Junior standing or consent of instructor. History 111 recommended.

Taught: Alternate years, 4 semester credits.

## 311 HISTORY OF FAMILY, GENDER, AND SEXUALITY IN CHINA Glosser

Content: Development of family structure and gender roles in Chinese history, explored through oracle bones, family instructions, tales of exemplary women, poetry, painting, drama, fiction, and calendar posters. Key movements in the transformation of family and gender from 1600 B.C.E. to the 20th century. Close readings of texts to explore how social, economic, religious, and political forces shaped family and gender roles.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 315 Japanese Intellectual History

Bernstein

Content: Major currents in Japanese thought and culture. Shinto and Buddhist religions, Neo-Confucianism, nativism. The intellectual response to foreign impact; the modern emperor system.

Prerequisite: Junior standing or consent of instructor. History 112 strongly recommended.

Taught: Alternate years, 4 semester credits.

## 316 Popular Culture and Everyday Life in Japanese History

Bernstein

Content: Popular culture as the site of social change and social control in Japan from the 18th to the 20th century. Religion and folk beliefs, work and gender roles, theatre and music, tourism, consumerism, citizens' movements, fashion, food, sports, sex, drugs, hygiene, and forms of mass media ranging from woodblock prints to modern comic books, film, television. Concepts as well as content of popular and mass culture.

Prerequisite: Junior standing or consent of instructor. History 112 recommended.

Taught: Alternate years, 4 semester credits.

## 320 HUMANISM IN RENAISSANCE EUROPE

Westervelt

Content: Writings by major figures in the humanist movement from the 14th to the 16th century. Social, political, intellectual contexts of humanism in the university and Italian city-state; ideal of return to sources of classical culture; civic humanism; interplay between Christian and secular ideals; relationship between Italian and northern forms of humanism; relationship between Renaissance humanism and the Protestant Reformation; comparative experience of Renaissance humanists and artists.

Prerequisite: History 120. Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 323 Modern European Intellectual History

Levinger

Content: Approaches to the problem of ethical values in 19th- and 20th-century European thought, including Marxist, social Darwinist, Nietzschean, and Freudian perspectives; existentialism; postmodernism. Readings in philosophical, literary, artistic works.

Prerequisite: Junior standing or consent of instructor. History 121 recommended.

Taught: Alternate years, 4 semester credits.

## 324 Religion and Society in Early Modern Catholicism, 1500-1600

Westervelt

Content: Charisma and bureaucracy in the careers of Ignatius of Loyola, founder of the Jesuits, and Teresa of Avila, of the Discalced Carmelites. Ignatius and Teresa as mystics, theologians, founders and/or reformers of religious orders, believers. Impact of national origin, social status, gender on their careers and on early modern Catholicism.

Prerequisite: History 120 or equivalent. Taught: Alternate years, 4 semester credits.

## 327 Britain in Two World Wars

Staff

Content: War as a shaping experience in British culture from 1914 to 1945. Readings of historical studies and primary accounts of war as experienced by men and women in battle and on the home front.

Prerequisite: Junior standing or consent of instructor. History 121 strongly recommended.

Taught: Alternate years, 4 semester credits.

#### 328 THE BRITISH EMPIRE

Campion

Content: The history of British overseas expansion from the early 17th century to the end of the 20th century. Theories of imperialism; Britain's Atlantic trade network; the Victorian empire in war and peace; collaboration and resistance among colonized people; India under the British raj; Africa and economic imperialism; the effects of empire on British society; the creation of the British Commonwealth; the rise of nationalism in India, Africa, and the Middle East; decolonization and postcolonial perspectives. Readings from primary and secondary sources.

Prerequisite: Junior standing or consent of instructor. History 121 recommended.

Taught: Alternate years, 4 semester credits.

#### 330 RACE AND ETHNICITY IN AMERICAN HISTORY

Content: The distinct experiences and culture of African-Americans in relation to other minority ethnic and racial groups. The uniqueness of the African-American experience; racism and prejudice; strategies of accommodation and resistance including gender and family relationships; the development of liberation movements. Readings of first-person narratives, secondary sources.

Prerequisite: Junior standing or consent of instructor.

Taught: Annually, 4 semester credits.

## 331 AMERICAN CULTURE AND SOCIETY: 1880-1980

Hunter

Content: Formation of modern culture from the late Victorian era to the "me decade." The influence of consumer culture, popular psychology, mass media, changing definitions of work and leisure in the development of a modern self. Origins and impact of the gender and race revolutions, relationship of "high" and "popular" culture. Readings in primary and secondary sources.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 335 HISTORY AND CULTURE OF AMERICAN INDIANS

Content: Purposes of archaeology and its contributions to the understanding of North American prehistory, the culture-area hypothesis, relations with tribes from colonial times to the present, Native American responses. Federal Indian policy and its evolution over the past 200 years.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 336 WILDERNESS AND THE AMERICAN WEST

Content: History of the trans-Mississippi West, including Euro-American perceptions of North America, issues of progress and preservation, and environmental history. Role of the federal government; contributions of minorities, women, and men in shaping the trans-Mississippi West. Voices of those who have sought to develop and conserve the West.

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 345 RACE AND NATION IN LATIN AMERICA

Young

Content: Social thought about race and nation in Latin America. The Iberian concept of pureza de sangre, development of criollo national consciousness, 20th–century indigenista movements. Linkages between national identities and constructions of race, particularly in the wake of revolutionary movements. Freyre (Brazil), Marti (Cuba), Vasconcelos (Mexico), and Sarmiento (Argentina).

Prerequisite: Junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

# 347 MODERN MEXICO: CULTURE, POLITICS, AND ECONOMIC CRISIS

Content: Origins and development of the modern Mexican nation from independence to the contemporary economic and political crisis. 1811–1940: liberal-conservative battles, imperialism, the pax Porfiriana, the Mexican Revolution, industrialization, and institutionalizing the revolution. 1940– present: urbanization, migration to the United States, the student movement, neoliberal economics and politics, disintegration of the PRI (Institutional Revolutionary Party), and the new social rebellions (Zapatistas, Popular Revolutionary Army, Civil Society). Constructing mexicanidad in music, dance, film, and the cultural poetics of the street and the town plaza.

Prerequisite: None. History 141 or 142 recommended.

Taught: Alternate years, 4 semester credits.

#### 348 Modern Cuba

Young

Content: Development of the modern Cuban nation from the independence movement of the mid-19th century to the contemporary socialist state. Focus on how identity changed under the Spanish colonial, U.S. neocolonial, Cuban republic, and revolutionary states. 1840s-1898: wars of independence, slavery, and transition to free labor. 1898–1952: U.S. occupation and neocolonialism, Afrocubanismo, and populism. 1952–present: Castro revolution, socialism, U.S.-Cuban-Soviet relations.

Prerequisite: History 142 recommended. Taught: Alternate years, 4 semester credits.

## 398 Absolutism in 16th- to 17th-Century France York

Content: The social, cultural, and political history of the turbulent 16th and 17th centuries in France. The impact of the Reformation and the Wars of Religion in France and their influence on the development of the absolutist conception of government. The different responses of aristocratic, peasant, and urban cultures to the various religious and political events in France. An examination of cultural definitions of masculinity and femininity, the importance of marriage, attitudes toward death, and the daily routines of people from different social backgrounds. The development of governmental culture and rituals under Cardinal Richelieu and Louis XIV to better understand absolutist monarchy.

Prerequisite: None.

Taught: Once only (spring 2004), 4 semester credits.

#### 400 READING COLLOQUIUM

Staff

Content: Reading and critical analysis of major interpretive works. Organized around themes or problems; comparative study of historical works exemplifying different points of view, methodologies, subject matter. Focus varies depending

on instructor's teaching and research area.

Prerequisite: Junior standing or consent of instructor.

Taught: Two to three colloquia annually, 4 semester credits each. May be taken twice for credit. Enrollment preference given to history majors and minors.

#### 444 PRACTICUM

Staff

Content: Same as History 244 but requiring more advanced work.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits. Eight credits may be applied to graduation requirements.

#### **450 HISTORY SEMINAR**

Staff

Content: Work with primary documents to research and write a major paper that interprets history. Topical content varies depending on instructor's teaching field. Recent topics: the Americas; the United States and Asia; European intellectual history since 1945; women in American history; Indian policy on the Pacific Slope; World War II, the participants' perspectives; British colonialism.

Prerequisite: History 300, consent of instructor.

Taught: Three seminars annually, 4 semester credits each. May be taken twice for credit. Enrollment preference given to history majors and minors.

#### 499 INDEPENDENT STUDY

Content: Same as History 299 but requiring more advanced work.

Prerequisite: Consent of instructor.

Taught: Each semester, 4 semester credits.

## International Affairs

## CHAIR: BOB MANDEL

The Department of International Affairs offers an interdisciplinary curriculum designed to help students understand the political, military, economic, historical, and cultural relations among states, nations, and transnational groups. Courses seek to provide students with the capacity to evaluate the significance and implications of these diverse relations and dynamics by synthesizing methodologies, theories, and ideas developed in a variety of disciplines. These include political science, economics, history, literature, psychology, sociology, and anthropology.

The department emphasizes both contemporary international relations and international history in its approach to foreign policy, security, international law and organizations, economic relations, and development issues. Courses in the major balance a heavy emphasis on theoretical, critical, and analytical thinking with serious empirical research. These courses are designed to encourage students to evaluate and question prevailing assumptions and existing theories in the field of international relations. In the spirit of a liberal arts education, the international affairs department helps students make informed judgments that go beyond superficial reactions to current events. In particular, courses help students develop a sound understanding of state and transnational phenomena and how and why systemic change occurs.

Students majoring in international affairs form the core of a strong International Affairs Association. This association coordinates students' participation in the annual International Affairs Symposium, the oldest continuing symposium of its kind in the United States.

The International Affairs Association also supports and encourages student participation in Model United Nations activities, and brings speakers on international subjects to campus, allowing students to talk informally with visiting policy-makers and scholars.

An annual student-run journal, the Meridian, offers an opportunity for students to publish their research and reflections on international topics.

Many majors participate in overseas programs and in the off-campus program in Washington, D.C. Students majoring in international affairs have had practica or internships with the World Affairs Council, the Port of Portland, Mercy Corps International, the U.S. Department of Commerce, the World Trade Center, the U.S. Department of State, the U.S. Agency for International Development, organizations of the United Nations, and various voluntary agencies.

#### THE MAJOR PROGRAM

Introduction to International Affairs (International Affairs 100), which provides an overview of the central concepts used in understanding international relations, should be taken early in the student's academic career since it is a prerequisite for most of the courses in the department. Majors take a set of departmental core courses and work with their advisers to construct programs appropriate to their interests and career goals.

The major culminates in the International Affairs Seminar (430). The thesis written in this course requires students to construct, research, write, and present a rigorous analysis of some dimension of international relations they find relevant and compelling.

The international affairs curriculum is organized into the following core courses and concentrations. See appropriate department listings for course descriptions.

#### Core Courses

International Affairs

100 Introduction to International Affairs

211 International Organizations

212 United States Foreign Policy

310 Theories of International Affairs

430 International Affairs Seminar

Economics

100 Principles of Economics

Political Science

101 Introduction to Politics or

103 U.S. Government: National Politics

#### Research Methods

Communication 260, Quantitative Research Methods

Economics 103, Statistics

Mathematics 105, Perspectives in Statistics

Political Science 201, Research Methods in Political Science

Psychology 200, Statistics I

Sociology/Anthropology 201, Quantitative Research Methods

## Comparative and Regional Perspectives

International Affairs

230 African Politics

231 Latin American Politics

234 Japan in International Affairs

- 236 International Relations of Northeast Asia
- 237 Development: Problems and Prospects
- 290 Middle East Politics
- 316 Russian Domestic and Foreign Policy

Political Science

- 102 Comparative Political Systems
- 349 Canadian Politics and Government

## International Systems and Processes

International Affairs

- 257 Global Resource Dilemmas
- 311 Regional Organizations and Integration
- 312 Studies of Diplomacy
- 329 International and Internal Conflict
- 330 National Security
- 332 Geopolitics
- 333 International Law
- 342 Perception and International Relations

328 The British Empire

Political Science

- 250 War and Military Policy
- 254 Comparative Nationalism
- 315 Transitions to Democracy
- 320 European Agrarian Development in Comparative Perspective

Sociology and Anthropology

350 Global Inequality

## Economic Perspectives

International Affairs

- 318 Multinational Corporations
- 340 International Political Economy
- 341 Advanced Industrial Economies

**Economics** 

- 232 Economic Development
- 280 Political Economy of Japan
- 291 Intermediate Macroeconomic Theory
- 295 Political Economy of South Korea
- 314 International Economics

#### MAJOR REQUIREMENTS

A minimum of 44 semester credits (11 courses), distributed as follows:

- 1) Seven departmental core courses: International Affairs 100, 211, 212, 310,
- 430. Economics 100. Political Science 101 or 103.
- 2) One course from each of the departmental concentrations: research methods, comparative and regional perspectives, international systems and processes, and economic perspectives.

#### **Honors**

The honors program is based on the thesis. All international affairs majors who have a GPA of 3.500 or higher, both in the major and overall, are eligible. A thesis judged by all members of the department faculty to be of superior quality, originality, and insight merits the award of honors on graduation.

## RESOURCES FOR NONMAJORS

An understanding of international affairs is important to each student's growth as an individual and as a citizen of an increasingly interdependent world. A number of courses in the department are accessible to nonmajors without prerequisites. Introduction to International Affairs (International Affairs 100)

gives the best general introduction to the field as a whole.

#### **FACULTY**

Andrew Cortell, assistant professor. International political economy, international relations theory, advanced industrialized countries. Stephen A. Lambo, assistant professor. Japanese foreign relations, international history of northeast Asia, oceanic affairs, geopolitics, comparative historiography, cultural internationalism.

Bob Mandel, professor. Conflict and security, global resource issues, transnational studies, economic and psychological aspects of international affairs, quantitative methods, international relations theory. Cyrus Partovi, senior lecturer in social sciences. Middle East politics, U.S. foreign policy, international politics, diplomacy, the United Nations.

Richard L. Peck, professor. International law and organization; Third World politics and development, particularly African and Latin American; African literature; international relations theory.

## 100 Introduction to International Affairs

Cortell, Lambo, Mandel, Partovi

Content: An introduction to a conceptual, analytical, and historical understanding of international relations. Emphasis on the international system and the opportunities and constraints it places on state and nonstate behavior. Cooperation and conflict, sovereignty, the rich-poor gap, determinants of national power, interdependence, the process of globalization, international institutions, and the role of transnational phenomena. Designed for students who have no previous background in the study of international relations. Prerequisite: None.

Taught: Annually, 4 semester credits.

## 211 International Organizations

Partovi, Peck

Content: The changing relationship between the United Nations and other selected international organizations and their environments. Purposes for which national governments try to use international organizations and consequences of their efforts. Politics of the U.N. and other international organizations, conflict management, economic and social issues facing the organizations.

Prerequisite: International Affairs 100. Taught: Annually, 4 semester credits.

## 212 United States Foreign Policy

Content: An overview of contemporary U.S. foreign policy from a historical and theoretical perspective. International, domestic, bureaucratic, and individual determinants of policy-making. New challenges and prospects for U.S. foreign policy in the post–Cold War era.

Prerequisite: International Affairs 100. Taught: Annually, 4 semester credits.

## 229 AFRICAN POLITICS AND LITERATURE

Content: Comparative analysis of politics as reflected in literature (novels, short stories, plays, poetry) from sub-Saharan Africa. Themes vary from year to year and may include: traditional political systems, colonialism and its legacies, nationalist movements, changing roles of women, problems of southern Africa, postcolonial independent Africa. Authors vary from year to year and may

include: early Swahili poets, Chinua Achebe, Sembene Ousmane, Wole Soyinka, Ayi Kwei Armah, Ngugi wa Thiong'o, Buchi Emecheta, Ben Okri, Andre Brink, Nadine Gordimer, J.M. Coetzee, Alex La Guma, Bessie Head, Nuruddin Farah, and others.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

#### 230 AFRICAN POLITICS

Peck

Content: Comparative analysis of sub-Saharan African politics. Traditional political systems, colonialism and its legacies, nationalist movements, changing political role of women, problems of southern Africa, patterns of government and of political activity in postcolonial independent African states. Uses principally social science materials with occasional materials of a more literary nature

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

#### 231 LATIN AMERICAN POLITICS

Peck

Content: Comparative analysis of politics in South and Central America. Specific emphases vary, but usually include role of the peasantry, Catholic Church and Catholicism, changing political role of women, international linkages, causes and effects of social revolutions, military rule, transitions to democracy. Theories attempting to explain patterns of Latin American politics. Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 234 Japan in International Affairs

Lambo

Content: Examination of Japan's international history from prewar to present, searching for historic, ideological, geophysical, systemic, and strategic explanations for Japanese foreign policy behavior. Changing formulations of national purpose, responses to international change, perceptions and realities. Controversies related to contemporary foreign affairs include Japan's prewar empire in Asia; wars with Russia, China, and the United States; and the postwar reconstitution of Japanese national power.

Prerequisite: None.

Taught: Annually, 4 semester credits.

# 236 International Relations of Northeast Asia

Lambo

Content: Political, economic, military, and cultural features of the international relations of China, Japan, Korea, and Pacific Russia. Comparative topics include regional and international linkages through time, war, domestic politics, foreign policy, trade, national defense, the influence of imagery and perception, the accomplishments and costs of modernization. The emergence of Northeast Asia as a dynamic center of world affairs.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 237 DEVELOPMENT: PROBLEMS AND PROSPECTS

Content: Comparative analysis of Third World politics. Politics of peasant movements, political role of women, Third World ideologies, cultural and international influences on underdevelopment, patterns of external

indebtedness and their political consequences.

Prerequisite: None.

Taught: Every third year, 4 semester credits.

#### 244 Practicum: Model United Nations

Partovi, Peck

Content: A student club offering Model United Nations participation. Model Security Council of the Columbia and Willamette Basins in fall; much larger Model United Nations of the Far West in spring. Research to prepare for participation. Credit granted for preparation, participation, postsession

analysis.

Prerequisite: None.

Taught: Each semester, 1 semester credit, credit—no credit.

## 257 GLOBAL RESOURCE DILEMMAS

Mandel

Content: Broad theoretical issues underlying international environmental problems, specifically relating to the global scarcity of nonhuman resources. The "limits to growth" and "lifeboat ethics" controversies; human impact on global resources and resulting environmental conflicts; national, transnational, international solutions to resource problems.

Prerequisite: International Affairs 100. Taught: Annually, 4 semester credits.

#### 290 MIDDLE EAST POLITICS

Content: Analysis and explanation of the historical forces that shaped the complexities of this region, placing the area in its proper setting and

perspective. Prerequisite: None.

Taught: Annually, 4 semester credits.

## 299 INDEPENDENT STUDY

Staff

Content: Opportunities for well-prepared students to design and pursue a substantive course of independent learning. Details determined by the student and the supervising instructor.

Prerequisite: Consent of instructor. Taught: Annually, 1-4 semester credits.

## 310 THEORIES OF INTERNATIONAL AFFAIRS

Cortell, Peck

Content: Examines contending theories of international relations, specifically those that explain the evolution and content of world politics by reference to transnational, international, state-specific, and/or individual factors. Emphasis on the conceptual, analytical, and methodological aspects of and debates in international relations theory.

Prerequisite: International Affairs 100, sophomore standing.

Taught: Each semester, 4 semester credits.

## 311 REGIONAL ORGANIZATIONS AND INTEGRATION

Content: Theories of international integration. Problems and prospects of

regional economic and political integration in Europe and other regions of the world.

Prerequisite: International Affairs 100, 211. Taught: Every third year, 4 semester credits.

#### 312 STUDIES OF DIPLOMACY

Partovi

Content: Functions of diplomacy; organization for the conduct of foreign affairs; diplomatic practice; techniques of reporting, analysis, negotiation; embassy and consular organization, function, administration.

Prerequisite: International Affairs 100 or junior standing.

Taught: Every third year, 4 semester credits.

## 316 Russian Domestic and Foreign Policy

Staff

Content: Russia and Commonwealth of Independent States relations. Internal and external roles of the former republics. Emphasis on foreign policy of the Republic of Russia.

Prerequisite: International Affairs 100. Taught: Alternate years, 4 semester credits.

#### 318 MULTINATIONAL CORPORATIONS

Mandel

Content: Causes of growth of the multinational corporation, its impact on host states and home states, international responses to its emergence.

Prerequisite: International Affairs 100. Economics 100.

Taught: Annually, 4 semester credits.

## 329 International and Internal Conflict

Mandel

Content: Theories on the outbreak of interpersonal aggression, theories on group aggression within states, traditional and nontraditional theories about international conflict, theories on crises, ways of controlling conflict. Analysis and integration of theories about causes of conflict at interpersonal, group, and international levels.

Prerequisite: International Affairs 100. Taught: Every third year, 4 semester credits.

#### 330 National Security

Mandel

Content: Reconceptualizing national security in the post-Cold War world, with emphasis on military, economic, political, cultural, and resource-environmental dimensions of security.

Prerequisite: International Affairs 100. Taught: Annually, 4 semester credits.

## 332 GEOPOLITICS

Lambo

Content: Survey of theoretical works on geography and geopolitics that have influenced the foreign policies of states at critical moments in the history of international relations and world order. Focus on renewed scholarly concern for the role of space in analyzing the international relations of economic globalization, human migration, environmental degradation, resource allocation, and political fragmentation since the Cold War. The dynamic nature of spatial change, and the profound and lasting effects of physical and socioeconomic geography on equality and stability in the international system. Prerequisite: International Affairs 100 or consent of instructor.

Taught: Annually, 4 semester credits.

## 333 International Law

Peck

Content: The political setting of international law, its changing content, its influence on the foreign policies of states, the special problems of regulating war, and developing and implementing human rights. Focus on insights from social science techniques and perspectives, not on technical understanding of international law.

Prerequisite: International Affairs 100, 211. Taught: Alternate years, 4 semester credits.

#### 340 International Political Economy

Content: Exploration of the relationship between politics and economics in international relations. History of the modern international political economy, and theories to explain how political factors affect the content and evolution of international economic systems. Trade, monetary, development, and production relations.

Prerequisite: International Affairs 100. Economics 100.

Taught: Annually, 4 semester credits.

#### 341 ADVANCED INDUSTRIAL ECONOMIES

Cortell

Content: Exploration of the elements and conditions that affect whether and how countries promote their industries and economies. Emphasis on the role of globalization and how political forces influence the national economic strategies adopted in the countries studied.

Prerequisite: International Affairs 100. Economics 100. International Affairs 340 recommended (but not required).

Taught: Alternate years, 4 semester credits.

## 342 Perception and International Relations

Mandel

Content: Processes and patterns of intergroup and international perception, views of enemies, perception in foreign policy-making and deterrence, ways of reducing perceptual distortions. Students analyze and theorize about the role of misperception—distortions in one state's perception of other states—in international relations.

Prerequisite: International Affairs 100. Taught: Annually, 4 semester credits.

## 430 International Affairs Seminar

Cortell, Lambo, Mandel, Peck

Content: Advanced research in international affairs. Production of a carefully researched and reasoned thesis, distribution to instructor and other class members for assessment. Oral presentation of thesis; written and verbal comments from instructor and other students.

Prerequisite: International Affairs 310, junior standing.

Taught: Annually, 4 semester credits.

#### 444 PRACTICUM

Staff

Content: Field learning experience combining theoretical concepts and skills learned in the classroom with practical work in on-campus and off-campus

organizations such as the World Trade Center, World Affairs Council, or U.S. Department of Commerce in Portland. Students must be well-prepared prior to enrollment, consult the faculty supervisor about the program in advance, and write a report on the practicum experience.

Prerequisite: Junior standing, consent of instructor.

Taught: Annually, 2-4 semester credits.

## **499 INDEPENDENT STUDY**

Staff

Content: Same as International Affairs 299 but requiring more advanced work.

Prerequisite: Junior standing, consent of instructor.

Taught: Annually, 1-4 semester credits.

# Latin American Studies

## COORDINATORS: RICHARD PECK, ELLIOTT YOUNG

The minor in Latin American Studies enables students to combine study of a major field in the arts, humanities, sciences, or social sciences with a focused study of Latin American and Hispanic/Latino history, culture, and contemporary affairs. The program includes a major component of overseas study integrated with courses from various disciplines on campus. Overseas study programs offered in Latin America and Spain allow students to spend up to a year studying in Spanish in curricular areas not covered on the Lewis & Clark campus.

The interdisciplinary minor is supervised by a group of faculty from several departments. This group coordinates the curriculum, advises students, supervises major research projects, and plans special events.

Students may apply for admission to the minor only after being accepted for an appropriate overseas study program. Students are also expected to submit a prospectus of study with the application for an overseas study program.

#### MINOR REQUIREMENTS

A minimum of 24 semester credits, distributed as follows:

- 1) One of the following: History 141, History 142, or Sociology/Anthropology 266.
- 2) A minimum of one and a maximum of three international studies courses (language courses do not apply) from participation in a Lewis & Clark overseas study program in Latin America or Spain.
- 3) Up to four additional courses from the Latin American studies courses listed below. It is highly recommended that one of these be a Latin American literature course.

## History

- 141 Colonial Latin American History
- 142 Modern Latin American History
- 242 Borderlands: U.S.-Mexico Border, 16th Century to Present
- 345 Race and Nation in Latin America
- 347 Modern Mexico: Culture, Politics, and Economic Crisis
- 348 Modern Cuba
- 400 Reading Colloquium (when focus is on Latin America)
- 450 History Seminar (when focus is on Latin America)

#### Hispanic Studies

- 230 Hispanic Literature in Translation
- 380 Major Periods in South American Literature
- 390 Major Periods in Mesoamerican and Caribbean Literature
- 410 Major Periods in Spanish Literature

440 Topics in Hispanic Literatures

444 Spanish Practicum

450 Special Topics

## Sociology/Anthropology

266 Latin America in Cultural Perspective

## International Affairs

231 Latin American Politics

430 International Affairs Seminar (when thesis is on Latin America)

#### Music

306 World Music: Latin America and the Caribbean

A minimum of 12 semester credits must be discrete to the minor (may not be used in any other set of major or minor requirements). In addition, at least three of the courses used for the minor must be taken on campus at Lewis & Clark.

## FORTHCOMING OVERSEAS STUDY PROGRAMS

## General Culture

Cuba: 2004, spring

Cuenca, Ecuador: annual, spring, summer

Santiago de los Caballeros, Dominican Republic: 2004 fall; 2005 fall

Seville, Spain: 2005, spring

## Language Intensive

Santiago de los Caballeros or Santo Domingo, Dominican Republic: annual,

one semester or full year

Santiago or Valparaíso, Chile: annual, one semester or full year

#### SPONSORING FACULTY

Mónica Flori, professor of Spanish.

Richard L. Peck, professor of international affairs.

Juan Carlos Toledano, assistant professor of Spanish.

Wendy Woodrich, senior lecturer in humanities.

Elliott Young, associate professor of history.

# Mathematical Sciences

## CHAIR: GREGORY A. FREDRICKS

The mathematical sciences—mathematics, statistics, and computer science continue to play a central role in the evolution of civilization. With a focus on patterns and structure, and with methodologies based on computation and representation of information, the mathematical sciences foster coherence and understanding that enable technology and broaden insights about the world of natural science.

The goal of the department is to acquaint students with this role as it relates to developments within the mathematical sciences as well as to applications to other disciplines. The department focuses on two distinct but complementary responsibilities: the mathematical sciences as an essential component of a liberal arts education and the mathematical sciences as a major course of study.

The department's courses present the many facets of the mathematical sciences: as a way of structuring the world of knowledge, as an art form, as an enabler in other disciplines, and as a historical force. As a consequence, the department provides the requisite mathematical, computational, and statistical content and methodology for allied disciplines as well as two comprehensive major programs.

## THE MAJOR PROGRAMS

The department supports two majors: one in mathematics and one in computer science & mathematics.

Students intending to major in either program should have four years of high school mathematics, including, at a minimum, two years of algebra, a course in geometry, and a course in precalculus mathematics (including analytical geometry and trigonometry). Most well-prepared students begin their college mathematics programs with Calculus (Mathematics 131, 132, or 233) and their college computer science programs with Computer Science I (Computer Science 171). Students who have received Advanced Placement credit in calculus or computer science should consult with a member of the department for proper placement. For students without strong backgrounds in mathematics, the department offers Elementary Functions (Mathematics 115) to prepare them for work in calculus and computer science.

Students with interest in a professional career in the mathematical sciences should plan their curriculum to meet specific goals, as follows: For graduate study in mathematics, Abstract Algebra I and II (Mathematics 421, 422); Advanced Calculus I and II (Mathematics 441, 442); as many additional upper-division mathematics courses as possible. These students should also be aware that many graduate programs require a reading knowledge of one or two foreign languages, usually chosen from among French, German, and Russian. For graduate study in computer science, Theory of Computation (Computer Science 465).

For graduate study in statistics or a career in actuarial science, Numerical Analysis (Mathematics 345); Probability and Statistics I and II (Mathematics 451, 452). For teaching in secondary or middle school, Number Theory (Mathematics 315); Geometry (Mathematics 355); Abstract Algebra I (Mathematics 421); Probability and Statistics I (Mathematics 451).

For a career in industry or applied mathematics, Statistical Concepts and Methods (Mathematics 255); Numerical Analysis (Mathematics 345); Complex Variables I and II (Mathematics 431, 432).

Students may not earn more than one major or minor from the department.

#### MAJOR REQUIREMENTS: COMPUTER SCIENCE & MATHEMATICS

A minimum of 40 semester credits in the mathematical sciences numbered 171 and above,\* including:

- 1) Computer Science 171, 172, 383; Mathematics 215, 225.
- 2) At least 8 semester credits from among: Mathematics 235, 315, 325, 345, 421, 422, 431, 432, 441, 442, 451, 452.
- 3) At least 12 semester credits from among: Computer Science 363, 367, 373, 377, 465, 495,\* including either 363 or 377.

#### MAJOR REQUIREMENTS: MATHEMATICS

A minimum of 36 semester credits in the mathematical sciences numbered 171 and above,\* including:

- 1) Computer Science 171; Mathematics 215, 225, 235.
- 2) At least 16 additional credits at the 300 or 400\* level, at least 12 of which must be in mathematics courses.

## MINOR REQUIREMENTS: COMPUTER SCIENCE

A minimum of 20 semester credits, including:

- 1) Sixteen semester credits in computer science courses numbered 171 and above.
- 2) Four semester credits in mathematics courses numbered 115 and above.

#### MINOR REQUIREMENTS: MATHEMATICS

A minimum of 16 semester credits in the mathematical sciences numbered 171 and above,\* including:

- 1) Mathematics 215 and 225.
- 2) At least 4 semester credits in mathematics at the 300 or 400\* level. (For information about the College's 3-2 cooperative program in computer science with the OGI School of Science & Engineering, see the Engineering listing in this catalog.)

#### **Honors**

The honors program in the mathematical sciences usually consists of a yearlong independent research project culminating in an appropriate oral presentation and written form. After completing the lower-division courses required for one of the majors and enrolling in at least one upper-division sequence, an interested student with a cumulative GPA of 3.500 or higher, both in the major and overall, should consult the chair or the student's adviser concerning a suitable project.

## RESOURCES FOR NONMAJORS

The following courses are designed especially for the nonmajor:

Review of Algebra (055), designed for those not prepared to take collegelevel mathematics, addresses second- and third-year high school mathematics.

Perspectives in Mathematics (103), Perspectives in Statistics (105), and Perspectives in Computer Science (107) stress connections among contemporary mathematics, statistics, computer science, and modern society.

Elementary Functions (115) provides experience with the functions encountered in introductory calculus or computer science courses.

#### **FACILITIES**

The College maintains microcomputer laboratories containing Windows and Apple computers in the library, several classroom facilities, and residence halls. All Lewis & Clark students have access to this computing machinery 24 hours a day, 7 days a week, for use in assigned coursework and independent projects. In addition, the department has two labs of 40 personal computers running LINUX and a small lab of 3 to 4 computers near the faculty offices. Students are encouraged to bring their own microcomputers to campus and use them independently or as terminals to access the College file servers. To assist students, Lewis & Clark supports a discount purchase program for microcomputers.

#### FACULTY AND STAFF

Suanne Benowicz, director of the Math Skills Center.

Yung-Pin Chen, assistant professor of mathematics. Statistics, sequential designs. Probability, stochastic processes.

Peter Drake, assistant professor of computer science. Artificial intelligence/ cognitive science. Programming languages.

Jeffrey S. Ely, associate professor of computer science. Computer graphics, numerical analysis.

Gregory A. Fredricks, professor of mathematics. Analysis, differential geometry. John W. Krussel, professor of mathematics. Graph theory, combinatorics, cryptography.

Jens Mache, assistant professor of computer science. Operating systems, computer architecture, parallel and distributed systems, computer networks. Roger B. Nelsen, professor of mathematics. Probability, statistics.

Robert W. Owens, professor of mathematics. Approximation theory, numerical analysis, optimization.

<sup>\*</sup> To apply Mathematics 490 or Computer Science 495 to a major or minor requires consent of the department chair.

Harvey J. Schmidt Jr., professor of mathematics. Algebra, finite groups, number theory, combinatorics.

# Computer Science

#### 107 Perspectives in Computer Science

Staff

Content: Introduction to computer science. Topics chosen from among: programming languages, digital logic and computer architecture, algorithms. Programming concepts including applications of loops, assignment and "if" statements, arrays, user-defined functions. Emphasis on the writing of programs illustrating these concepts. Students who have received credit (including transfer credit) for Mathematics 171 or its equivalent may not register for this course.

Prerequisite: Mathematics 055 or Proficiency Exam.

Taught: Annually, 4 semester credits.

#### 171 COMPUTER SCIENCE I

Staff

Content: Basic techniques for solving problems amenable to solution through the use of a high-level computer programming language. Emphasis on solving a problem via a program and on the skills to write programs solving complex problems.

Prerequisite: Mathematics 115 or Proficiency Exam or consent of instructor. Taught: Each semester, 4 semester credits.

#### 172 COMPUTER SCIENCE II

Staff

Content: Data structures and algorithmic techniques that are fundamental in programming solutions to complex problems. Abstract data types, lists, stacks, queues, trees, graphs. Insertion, deletion, and traversal algorithms. Use of iterative and recursive techniques.

Prerequisite: Computer Science 171 or consent of instructor.

Taught: Each semester, 4 semester credits.

## **363 OPERATING SYSTEMS**

Mache

Content: Basic principles, policies, design issues, and construction of computer operating systems. Memory management, scheduling, synchronization of concurrent processes, input-output.

Prerequisite: Computer Science 172.

Taught: Alternate years, 4 semester credits.

#### **367 COMPUTER GRAPHICS**

Elv

Content: Two- and three-dimensional computer graphics. Line, circle, filling, windowing, clipping algorithms, three-dimensional perspective projections, hidden line removal, shading, light models.

Prerequisite: Computer Science 172. Familiarity with trigonometry, vectors helpful.

Taught: Annually, 4 semester credits.

## 373 PROGRAMMING LANGUAGE STRUCTURES

Drake

Content: Organization, structure, syntax, and grammar of computer programming languages. Basic concepts and special-purpose facilities in several representative high-level languages. Static versus dynamic storage management, control structures, scope of declarations, binding time, Backus-Naur

form.

Prerequisite: Computer Science 172.

Taught: Alternate years, 4 semester credits.

## 377 COMPUTER ARCHITECTURE AND ASSEMBLY LANGUAGES

Content: Computer design concepts and assembly languages. Topics chosen from among: digital logic; arithmetic/logic unit design; bus structures; VLSI implementation; SIMD, MIMD, and RISC architectures; instruction sets; memory addressing modes; parameter passing; and macro facilities.

Prerequisite: Computer Science 172. Taught: Annually, 4 semester credits.

#### 383 ALGORITHM DESIGN AND ANALYSIS

Content: Introduction to the design and analysis of algorithms. Balanced binary search trees; heaps; dynamic programming; algorithms including

incremental, divide and conquer, sweep line, greedy, graph. Prerequisite: Computer Science 172. Mathematics 215.

Taught: Annually, 4 semester credits.

#### 387 ADVANCED ALGORITHMS

Drake, Mache

Content: In-depth study of algorithms applied to real-world problems, with an emphasis on writing and communicating results. Requirements, specification, verification, testing, debugging, and teamwork.

Prerequisite: Computer Science 172 and 383. Mathematics 215.

Taught: Annually, 4 semester credits.

## 393 Computer Networks

Mache

Content: Study of the structure, implementation, and theoretical underpinnings of computer networks. Topic areas include: Internet protocols, client-server computing, and distributed applications.

Prerequisite: Computer Science 172. Taught: Annually, 4 semester credits.

#### **465** THEORY OF COMPUTATION

Staff

Content: Basic theoretical foundations of computer science including finite state and pushdown automata, Turing machines, computability, halting problems, the relationship between grammars and automata.

Prerequisite: Computer Science 383 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 495 Topics in Computer Science

Staff

Content: Determined by student and/or faculty interest. May continue topics from an existing course or explore new areas.

Prerequisite: Consent of instructor.

Taught: Alternate years, 4 semester credits.

## Mathematics and Statistics

## 055 REVIEW OF ALGEBRA

Benowicz

Content: Solving linear, absolute value, quadratic, exponential, and logarithmic equations. Introduction to functions and their graphs. Conic sections, polynomial operations including factoring and rules for exponents, rational and radical expressions, inequalities and systems of equations. Prerequisite: None.

Taught: Each semester, credit—no credit, 4 semester credits (not counted toward the 128 semester credits needed for graduation).

#### 103 Perspectives in Mathematics

Staff

Content: For nonmajors. Selected topics illustrating mathematics as a way of representing and understanding patterns and structures, as an art, as an enabler in other disciplines, and as a historical force. Emphasis changes from semester to semester, reflecting the expertise and interests of the faculty member teaching the course. For further information consult the appropriate faculty member before registration.

Prerequisite: Mathematics 055 or Proficiency Exam.

Taught: Annually, 4 semester credits.

## 105 Perspectives in Statistics

Staff

Content: Data analysis, data production, and statistical inference. Data analysis: methods and ideas for organizing and describing data using graphs, numerical summaries, and other statistical descriptions. Data production: methods for selecting samples and designing experiments to produce data that can give clear answers to specific questions. Statistical inference: methods for moving beyond the data to draw conclusions about some wider universe. Note: Students who have received credit for Economics 103 or Psychology 200 are not permitted to enroll in this course.

Prerequisite: Mathematics 055 or Proficiency Exam.

Taught: Annually, 4 semester credits.

## 115 ELEMENTARY FUNCTIONS

Staff

Content: The basic functions encountered in calculus, discrete mathematics, and computer science: polynomial, rational, exponential, logarithmic, and trigonometric functions and their inverses. Graphs of these functions, their use in problem solving, their analytical properties.

Prerequisite: Mathematics 055 or Proficiency Exam.

Taught: Each semester, 4 semester credits.

## 131 CALCULUS I

Staff

Content: Basic analytical and quantitative reasoning and problem-solving skills that depend on the concept of the limit. Continuity, the derivative and its applications, the Fundamental Theorem of Calculus, introduction to the definite integral with applications.

Prerequisite: Mathematics 115 or Proficiency Exam or consent of instructor. Taught: Each semester, 4 semester credits.

#### 132 CALCULUS II

Staff

Content: Further development of the definite integral including techniques of integration, applications of the definite integral, indeterminate forms, and improper integrals. Sequences, series of constants, power series, Taylor polynomials and series, introduction to elementary differential equations.

Prerequisite: Mathematics 131 or consent of instructor.

Taught: Each semester, 4 semester credits.

## 215 DISCRETE MATHEMATICS

Staff

Content: Basic techniques of abstract formal reasoning and representation used in the mathematical sciences. First order logic, elementary set theory, proof by induction and other techniques, enumeration, relations and functions, graphs,

recurrence relations. Prerequisite: Mathematics 132 or consent of instructor.

Taught: Annually, 4 semester credits.

#### 225 LINEAR ALGEBRA

Staff

Content: Basic skills and concepts that evolve from the study of systems of linear equations. Systems of linear equations, Euclidean vector spaces and function spaces, linear transformations, matrices and determinants, inner product spaces, eigenvalue problems, symmetric transformations.

Prerequisite: Mathematics 132 or consent of instructor.

Taught: Annually, 4 semester credits.

## 233 CALCULUS III

Staff

Content: Basic analytical and quantitative skills in the theory of functions of several variables. Partial differentiation; gradients; multiple integrals; theorems of Green, Gauss, and Stokes.

Prerequisite: Mathematics 132 or consent of instructor.

Taught: Annually, 4 semester credits.

## 235 DIFFERENTIAL EQUATIONS

Staff

Content: Basic methods, theory, and applications of differential equations. Solutions and the qualitative behavior of solutions of linear and nonlinear differential equations and of systems of differential equations, Laplace transform methods, numerical techniques.

Prerequisite: Mathematics 132 or consent of instructor.

Taught: Annually, 4 semester credits.

## 255 STATISTICAL CONCEPTS AND METHODS

Chen, Nelsen

Content: Introduction to principal statistical concepts and methods with emphasis on data. Statistical thinking, the application of statistical methods to other disciplines, and the communication of statistics, both verbally and in writing. Exploratory data analysis, random variables, regression analysis, data production, and statistical inference. Mathematical tools and skills used to address problems posed by collecting, analyzing, and modeling data.

Prerequisite: Mathematics 131 or consent of instructor.

Taught: Annually, 4 semester credits.

## 315 Number Theory

Staff

Content: Divisibility properties of the integers, unique factorization, linear Diophantine equations, congruences, Fermat's and Wilson's theorems, arithmetic functions. Other topics selected from among: primitive roots and indices, quadratic reciprocity, the theory of prime numbers, continued

fractions, sums of squares, analytic number theory. Prerequisite: Mathematics 215 or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 325 COMBINATORICS

Krussel

Content: Introduction to combinatorial theory, including one or more of the following: enumeration, algebraic enumeration, optimization, graph theory, coding theory, design theory, finite geometries, Latin squares, posets, lattices, Polya counting, Ramsey theory.

Prerequisite: Mathematics 215, 225.

Taught: Alternate years, 4 semester credits.

#### 345 Numerical Analysis

Elv, Owens

Content: Study of the theoretical basis, error analysis, and practical techniques of numerical computations. Topics chosen from among: solutions of systems of linear equations, solutions of nonlinear equations, numerical integration and differentiation, solutions of ordinary differential equations, eigenvalue problems, interpolation, approximation.

Prerequisite: Computer Science 171. Mathematics 225, 233.

Taught: Alternate years, 4 semester credits.

#### 355 GEOMETRY

Staff

Content: Concepts of geometry encompassing both Euclidean and non-Euclidean geometries. Parallelism, distance, angles, triangles, other geometric notions studied from the viewpoint of logic and foundations, transformations or differential geometry.

Prerequisite: Mathematics 215 and 233, or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 421, 422 ABSTRACT ALGEBRA I, II

Krussel, Schmidt

Content: A two-semester sequence in abstract algebraic systems. Structure of groups, subgroups, quotient groups, homomorphisms, Fundamental Isomorphism Theorems, rings, ideals, integral domains, polynomial rings, matrix rings, fields, Galois theory, advanced topics in linear algebra. Prerequisite: Mathematics 215, 225. Mathematics 315 strongly recommended. Taught: Alternate years, 4 semester credits each.

## 431, 432 COMPLEX VARIABLES I, II

Fredricks, Nelsen, Owens

Content: A two-semester sequence in the theory of functions of a complex variable. Complex number system, analytic functions, integration of functions of a complex variable, power series representation, conformal mappings, residue theory, applications to physics as well as other areas of mathematics. Prerequisite: Mathematics 233, 235.

Taught: Alternate years, 4 semester credits each.

## 441, 442 ADVANCED CALCULUS I, II

Staff

Content: A two-semester sequence in the theory of the calculus. Development of the ability to understand, construct, and write proofs in analysis. Completeness axioms, limits, continuity, differentiation, integration, applications, generalizations.

Prerequisite: Mathematics 215, 225, 233.

Taught: Alternate years, 4 semester credits each.

## 451, 452 Probability and Statistics I, II

Chen, Nelsen

Content: A two-semester sequence in the theory of probability and mathematical statistics. Elementary probability, discrete and continuous random variables, distributions, limit theorems, point estimation, hypothesis testing, linear models, analysis of variance, nonparametric statistics.

Prerequisite: Mathematics 215, 233.

Taught: Alternate years, 4 semester credits each.

#### 490 Topics in Mathematics

Staff

Content: Determined by student and/or faculty interest. May continue topics from an existing course or explore new areas.

Prerequisite: Consent of instructor.

Taught: Alternate years, 4 semester credits.

## Music

#### CHAIR: ELEONORA MARIA BECK

Music is an artistic and social language. It is abstract on one hand, yet emotional and communicative on the other. To understand it takes experience, reason, and words, but it also takes imitating it and creating anew. We speak about it and we speak in it.

At Lewis & Clark, opportunities in music exist for the person first exploring the art as well as for the serious student who aspires to a professional career. Throughout this spectrum, a fundamental philosophy is to enable students to experience music as a perpetually liberating and enriching element in their lives.

The curriculum encompasses many courses, private lessons, and ensembles, all of which are available to the nonmajor as well as the music major. Instruction emphasizes the integration of performance studies, knowledge of the literature, and theoretical concepts. Many courses concentrate on music as a reflection of various societies and cultures, Western and non-Western.

The Department of Music faculty consists of active performers, composers, and scholars, all of whom are dedicated teachers.

#### THE MAJOR PROGRAM

In addition to the minimum major requirements, all students majoring in music pursue a senior project in one area: composition, ethnomusicology, musicology, music education, performance. A core curriculum is common for the first two years, with students pursuing appropriate concentrations in the junior and senior years. Declaring a music major by the sophomore year is advisable.

A review takes place at the end of spring semester of the sophomore year as students near the completion of common requirements in the major. All majors and prospective majors are reviewed by the music faculty at this time. Transfer students and those who decide to declare a music major after the sophomore year must consult the department chair.

The review involves a short performance in the student's primary area of studio instruction, optional work samples in his or her primary area of interest (for students concentrating in composition, musicology, or ethnomusicology), and an interview about intended areas of concentration in the junior and senior years. In this formal advising opportunity, the entire music faculty is available to help each student plan to fulfill upper-division degree requirements and complete the senior project.

A satisfactory departmental review results in faculty approval of upperdivision status as a music major, and is a prerequisite for Music 490, Senior Project. Enrollment in Music 490 also requires completion of at least one semester of 300-level study in the chosen area of concentration. Further advising for a student's senior project is done individually to match students' aims with departmental and national standards. The project requires work beyond the basic major requirements. Majors are also required to pass a piano proficiency examination.

## MAJOR REQUIREMENTS

Prerequisites (may be waived by examination): Music 101, 111, 121 A minimum of 44 semester credits, distributed as follows:

- **I.** Forty hours from the following:
- 1) Music Theory and Composition: 212, 213, 222, 223.
- 2) Music History and Literature: 162, 163.
- 3) Four semester credits of a single major instrument including voice. Declared majors must enroll in studio instruction every semester on campus.
- 4) Six semester credits of ensemble, at least four of which must be from Cappella Nova or Wind Symphony/Orchestra.
- 5) Eight semester credits of upper-division theory or composition. Required: Music 314. Remainder chosen from Music 316, 318, 321, 325, 326, 327, 328, 331, 416. Composition majors must take one of the following: Music 325, 326,
- 6) Four semester credits of upper-division music history or literature, chosen from Music 302, 361, 362, 363, 380.
- 7) Pass the piano proficiency examination.
- 8) Two semester credits in Music 490. Senior project requirements by area of major: a) Composition: Preparation of professional-quality manuscripts. Recital of original musical works; graded by jury. **b)** Ethnomusicology: Thesis in ethnomusicology; graded by committee. **c)** Musicology: Thesis in musicology; graded by committee. d) Music Education: i) work sample similar to those required by our graduate school's M.A.T. program. ii) satisfactory evaluations by both cooperating teachers. iii) satisfactory evaluation by the supervising faculty member. iv) public or videotaped demonstration of work with students for faculty review. e) Performance: Recital on the major instrument; graded by
- **II.** Four credits of specific requirements by area of major: **a)** Composition: One of the following, different from the course counted in 5, above: Music 325, 326, 327, 328. It is strongly recommended that composers who wish to pursue graduate work take all four of these courses, as well as Music 331, 416. b) Ethnomusicology: One additional course in ethnomusicology. Recommended: Sociology/Anthropology 100 or 110, 200. c) Musicology: Music 361. Recommended: Music 362, 363. d) Music Education: Music 331 and two credits from Music 385, 386, 387, 388, 389 (1 credit each). Recommended: Music 416 and Education 201. e) Performance: Three additional credits of instruction on the major instrument. One additional credit of Western ensemble. Recommended: Four additional credits of Western ensemble, as well

as Music 331, 416.

#### THE MINOR PROGRAM

Students who wish a basic but thorough introduction to the field of music may choose to minor in music. Minors pursue basic coursework in a variety of aspects of music study, history, theory, and performance.

## MINOR REQUIREMENTS

A minimum of 23 semester credits, distributed as follows:

- 1) Four semester credits of music theory and aural skills chosen from Music 111, 121, 212, 222.
- 2) Eight semester credits in music history and literature: Music 162, 163.
- 3) Two semester credits in ensembles (Cappella Nova, Javanese Gamelan, or Wind Symphony/Orchestra).
- **4)** One semester credit of instrumental lessons including voice.
- 5) Eight semester credits in upper-level theory, history and literature, or composition, including Music 305 or 306.

## **Honors**

To qualify for honors candidacy, students must show outstanding promise as performers, scholars, composers, or teachers, and produce exceptional senior projects. They should normally have a GPA of 3.500 or higher in the major and overall. All senior music majors are reviewed for possible honors by the faculty. Students must have completed at least two semesters of coursework at Lewis & Clark before being considered eligible for honors candidacy.

## PERFORMING ORGANIZATIONS

The Department of Music provides performing opportunities for students at all levels of accomplishment and interest. These include small, informal chamber ensembles as well as the Wind Symphony/Orchestra, Jazz Ensemble, Opera/ Musical Theatre, Javanese Gamelan, West African Rhythms, African Marimba, and Cappella Nova (a vocal ensemble specializing in early music and contemporary music).

## RESOURCES FOR NONMAIORS

Since the Department of Music serves the entire College, all performing groups welcome participation by nonmajors, and all studio instruction is open to beginning as well as advanced students. The following courses are appropriate for students with little or no previous knowledge of music.

Music 101 Pre-Theory

Music 102 Jazz Appreciation

Music 104 Sound and Sense: Understanding Music

Music 105 Introduction to World Music

Music Performance 117 Cappella Nova

Music Performance 121 Gamelan

Music Performance 131-136 and 138-139 Class instruction in voice, piano, guitar, percussion, West African rhythms, African marimba, music of India

Music 151 Contemporary Trends in Music

Music 205 Music in the United States

Music 220 Introduction to Electronic Music

Music 221 Studies in Electronic and Computer Music

Music 276 Opera, Mantua to Beijing

Music 305 World Music: Asia

Music 306 World Music: Latin America and the Caribbean

Music 361 Music and Language

#### FACILITIES

The musical life of the College centers in Evans Music Center. Rehearsal rooms, 22 practice rooms, faculty offices and teaching studios, classrooms, and administrative offices of the Department of Music are located there. The 400-seat Evans Auditorium is well known in the Portland area for its superior acoustics. Agnes Flanagan Chapel is also often used for major concerts. Fir Acres Theatre provides excellent facilities for production of operas, musicals, and other types of theatre.

The Department of Music uses a collection of more than 4,000 recordings, compact discs, and cassettes housed in Aubrey R. Watzek Library. A fully equipped listening center and electronic and computer music studio with video editing capabilities is available for student use. Evans Music Center also contains a Yamaha electronic keyboard laboratory.

The music center houses two harpsichords, a baroque organ, and 43 pianos, including a nine-foot Steinway concert grand. The College chapel contains an 85-rank Casavant organ appropriate for performance of all styles and periods. It is one of the finest organs in the Pacific Northwest. Two other pipe organs are also available on campus.

#### **FACULTY**

Eleonora Maria Beck, associate professor. Medieval and Renaissance music history; contemporary American, popular, and women's music.

David M. Becker, senior lecturer and director of bands. Wind Symphony, Jazz Ensemble, music education, jazz history and theory, conducting.

Orla McDonagh, instructor. Piano, theory.

Forrest Pierce, assistant professor. Composition, theory.

Gilbert Seeley, James W. Rogers Professor of Music. Choral music, conducting, contemporary trends, world music.

#### VISITING FACULTY

George Skipworth, visiting assistant professor. Orchestra, piano, pre-theory.

## ADJUNCT FACULTY

Obo Addy, Ghanaian master drummer.

Carolyn Arnquist, clarinet.

Dan Balmer, jazz guitar.

Nathan Beck, ethnomusicology, African marimba.

Carol Biel, piano.

David Bryan, low brass.

*Iohn* Cox. French horn.

Dorien Deleon, cello.

Kevin Dietz, string bass.

Jonathan Dubay, violin, viola.

Mark Eubanks, bassoon.

Anna Haagenstrom, voice.

Elizabeth Harcombe, piano.

Jeff Homan, saxophone.

Mitch Iimori, oboe.

Nisha Joshi, North Indian voice and sitar.

Scott Kritzer, classical guitar, folk guitar.

Jeffrey Leonard, electric bass guitar, electronic music.

Susan McBerry, voice, opera workshop, Cappella Nova.

James O'Banion, trumpet.

Brett Paschal, percussion.

Randy Porter, jazz piano.

John Richards, tuba.

Saeko Saheki, Japanese koto and shamisen.

Elaine Seeley, harp. Tim Swain, recorder.

Nancy Teskey, flute.

#### 101 Pre-Theory

Staff

Content: Elements of music in sight and sound, dealing with pitch, rhythm,

intervals, chords. Prerequisite: None.

Taught: Each semester, 2 semester credits.

## 102 Jazz Appreciation

Becker

Content: Developing listening skills, understanding musical concepts and the elements of music, examining the work of several major jazz figures. Styles from jazz roots through contemporary. For students with little or no

background in music. Prerequisite: None.

Taught: Annually, 4 semester credits.

## 104 SOUND AND SENSE: UNDERSTANDING MUSIC

Content: Characteristics and sources of musical sounds, elements of music, musical texture. Examples from a variety of forms, periods, and styles including non-Western and popular music.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 105 Introduction to World Music

Seelev

Content: Examination of musics from around the world. Familiarity with a variety of musics, understanding them in their own terms and in relation to the cultures that produce them. Specific content may change from year to year. Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 111 AURAL SKILLS I

Pierce

Content: Pitch, interval recognition, sight-singing; musical elements of melody, rhythm, basic harmony; rudiments of conducting and music notation. Prerequisite: Music 101 or placement examination. Concurrent enrollment in

Taught: Annually, 2 semester credits.

## 121 Music Theory I

Pierce

Content: Functional diatonic harmony and voice leading in the styles of the common practice period. Keyboard harmony and figured bass in four voices. Elementary counterpoint, formal analysis, rhythmic structures, and modulation.

Prerequisite: Music 101 or placement exam. Concurrent enrollment in Music 111.

Taught: Annually, 2 semester credits.

## 151 CONTEMPORARY TRENDS IN MUSIC

Staff

Content: New music examined through recordings, articles, reviews, lectures, live concerts. Focus on Western classic tradition of the last decade, at times crossing over to jazz, multimedia rock, non-Western culture. Recent developments in music worldwide, new material each year.

Prerequisite: None.

Taught: Alternate years, 2 semester credits.

#### 162 HISTORY OF WESTERN MUSIC I

E. Beck

Content: Compositions from the Middle Ages to Bach and Handel. Medieval, Renaissance, baroque periods; musical forms developed during these periods; evolution of musical theory and performance practice.

Prerequisite: Music 121 or consent of instructor.

Taught: Annually, 4 semester credits.

## 163 HISTORY OF WESTERN MUSIC II

E. Beck

Content: Representative compositions from Haydn and Mozart to those by living composers. Classical, romantic, and modern periods; musical forms developed during those periods; evolution of musical theory and performance

Prerequisite: Music 162 or consent of instructor.

Taught: Annually, 4 semester credits.

## 205 MUSIC IN THE UNITED STATES

Seelev

Content: Music representing formal and informal traditions in American culture, especially in the 20th century. Emphasis on oral traditions, roots of blues and jazz, and the relationship of music to other arts, society, and culture. Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 212, 213 AURAL SKILLS II, III

McDonagh

Content: Listening and music reading exercises and assignments drawn from more advanced melodic, rhythmic, and harmonic materials, predominantly from Western music.

Prerequisite for 212: Music 111 or placement examination. Concurrent enrollment in Music 222.

Prerequisite for 213: Music 212 or placement examination. Concurrent enrollment in Music 223.

Taught: Annually, 2 semester credits each.

#### 220 Introduction to Electronic Music

Content: Electronic music synthesis. MIDI and other computer-aided composition. Recording. Sampling. Combining acoustic and electronic music. Historical overview of technical developments and of important compositions and composers.

Prerequisite: None.

Taught: Annually, 2 semester credits.

#### 221 STUDIES IN ELECTRONIC AND COMPUTER MUSIC

Leonard

Content: Continuation of work in electronic and computer sound synthesis, composition, acoustic admixtures. Music in multimedia such as film, video, performance, art. Recent technical and artistic developments.

Prerequisite: Music 220 or consent of instructor.

Taught: Annually, 2 semester credits. May be repeated for credit.

## 222, 223 Music Theory II, III

McDonagh

Content: Melodic, rhythmic, and harmonic practices of Western music from circa 1700 to 1950. Instrumental and vocal forms from these years; writing of compositions in similar styles.

Prerequisite for 222: Music 121 or placement examination. Concurrent enrollment in Music 212.

Prerequisite for 223: Music 222 or placement examination. Concurrent enrollment in Music 213.

Taught: Annually, 2 semester credits each.

#### 224 Beginning Composition

Pierce

Content: Introduction to the art of creative musical communication. Musical gestures, repetition, and contrast. Students compose exercises and pieces, perform works, study contemporary music and ideas.

Prerequisite: Music 121.

Taught: Annually, 2 semester credits. May be taken twice for credit.

## 276 OPERA, MANTUA TO BEIJING

E. Beck

Content: Opera as a dramatic, multidisciplinary music-theatrical form that has developed in specific ways in different countries, cultures, eras. Several operas studied, with emphasis on Western examples from the baroque to contemporary. Literary, musical, and dramatic elements. Use of visual and audio materials, live performances when possible.

Prerequisite: Music 162 or consent of instructor. Taught: Alternate years, 4 semester credits.

#### 299 INDEPENDENT STUDY

Content: A well-defined study project carried out under regular supervision by a faculty member. Because the course allows advanced students to work in areas and on projects not normally included in scheduled courses, it may not be substituted for a course with similar content in the regular curriculum.

Prerequisite: Consent of instructor and department chair.

Taught: Annually, 2-4 semester credits.

## 302 JAZZ HISTORY

Becker

Content: Jazz as an American art form, exploring musical and social developments throughout its history from the turn of the century to the present. Musical styles of performers from each period of the development of jazz.

Prerequisite: Music 101 or Music Performance 113 or consent of instructor. Taught: Alternate years, 4 semester credits.

#### 305 WORLD MUSIC: ASIA

Staff

Content: Survey of musical traditions from the Near East, Middle East, India, and Africa. Study of music, instruments, and performance through readings, recordings, live performance when possible. Historical developments. How the music is used. Social organization, poetry, literature, religion, dance as they assist in understanding the music and its culture.

Prerequisite: Music or anthropology course or consent of instructor.

Taught: Annually, 4 semester credits.

# 306 WORLD MUSIC: LATIN AMERICA AND THE CARIBBEAN

Staff

Content: Survey of musical traditions and styles of the Caribbean and Middle and South America, including Afro-Cuban music, salsa, Latin jazz, and folk music of the Andes. Study of the music, instruments, and performance through readings, recordings, live performance when possible. Historical developments, how the music is used. Social function, political context, art, poetry, literature, religion as they assist in understanding the music and its culture.

Prerequisite: Music or anthropology course or consent of instructor.

Taught: Annually, 4 semester credits.

## 314 20TH-CENTURY THEORY AND AURAL SKILLS

Pierce

Content: Music theory and compositional practice from late chromatic harmony to free atonality, polytonality, expanded and varied scalar and harmonic structures, neoclassicism, serialism, indeterminacy, expanded tone colors, minimalism, new formal organizations. Ear training, sight singing, and rhythm reading with representative works.

Prerequisite: Music 213 and 223, or placement examination.

Taught: Annually, 4 semester credits.

## 316 JAZZ THEORY

Content: Introduction to and application of jazz chord theory and chord symbols, jazz scale theory, common jazz progressions, chord substitutions and forms. Written exercises presenting theoretical principles. Application of principles through performance of the student's instrument or voice. Beginning concepts of jazz improvisation, arranging, and keyboard application.

Prerequisite: Music 121.

Taught: Alternate years, 2 semester credits.

#### 318 WORLD MUSIC THEORY

Staff

Content: Analysis of structural and formal principles of various world music systems. Special focus on ragas of North India, gamelan ensembles of Bali and Java, rhythmic polyphony of West African drumming, improvisational processes of Eastern European folk music, as well as traditional musics chosen by students for further investigation.

Prerequisite: Music 111, 121.

Taught: Annually, 2 semester credits.

## 321 SEMINAR IN ELECTROACOUSTIC COMPOSITION

Leonard

Content: Advanced, continuing course covering advanced synthesis and sound design including additive, subtractive, wavetable, and linear synthesis; computer-aided orchestration; composition for motion pictures and other

media; and orchestral modeling. In-depth training in cutting-edge concepts for students seriously considering careers in the music industry or academia.

Prerequisite: Music 220, 221. Music 104 or 162 or 101.

Taught: Annually, 2 semester credits. May be repeated for credit.

#### 325 ORCHESTRATION AND COMPOSITION I

Pierce

Content: Intensive study in the art of composing, including names, ranges, construction, history, and capabilities of strings, winds, and horn. Students compose works for instrumental ensembles currently being studied, including major pieces for string quintet, woodwind quintet, and chamber orchestra. Regular demonstrations by guest performers serve as a laboratory for experimentation with timbre and notation. At least one class period per week focuses on notational practice, current compositional trends and innovations, and/or great masterworks of the last 30 years. Students receive one private lesson per week on their work, and present a piece for public performance at the end of the semester.

Prerequisite: Music 213, 223, and 224, or consent of instructor.

Taught: Alternate years, 2-4 semester credits.

## 326 Orchestration and Composition II

Content: Further intensive study in the art of composing, including names, ranges, construction, history, and capabilities of brass, percussion, harp, piano, and both solo and choral voice types. Students compose works for instrumental ensembles currently being studied, including major pieces for percussion ensemble, full orchestra, choir, and pierrot ensemble. Regular demonstrations by guest performers serve as a laboratory for experimentation with timbre and notation. At least one class period per week focuses on notational practice, current compositional trends and innovations, and/or great masterworks of the last 30 years. Students receive one private lesson per week on their work, and present a piece for public performance at the end of the semester.

Prerequisite: Music 325 or consent of instructor. Taught: Alternate years, 4 semester credits.

## 327 COUNTERPOINT AND COMPOSITION I

Pierce

Content: Intensive study in the distinguishing characteristic of Western composition: the manipulation of multiple simultaneous voices. Tonal counterpoint, including the styles of the Common Practice period, as well as more recent approaches. Study and imitation of historical models, mastery of functional tonal harmony, composition of both imitative and original contemporary compositions using tonal contrapuntal media. Students receive one private lesson per week on their work, and present a piece for public performance at the end of the semester. Students enrolling for 2 credits omit lesson and modify assignments to reflect interests in historical context.

Prerequisite: Music 213, 223, and 224, or consent of instructor.

Taught: Alternate years, 2-4 semester credits.

#### 328 COUNTERPOINT AND COMPOSITION II

Pierce

Content: Further intensive study in the distinguishing characteristic of Western composition: the manipulation of multiple simultaneous voices. Nontonal counterpoint, including the styles of the late medieval and Renaissance

periods, as well as the atonal, serial, and New Virtuosic schools of the 20th century. Study and imitation of historical models, mastery of elementary high Renaissance Palestrinian technique, composition of both imitative and original contemporary compositions using nontonal contrapuntal media. Students receive one private lesson per week on their work, and present a piece for public performance at the end of the semester.

Prerequisite: Music 327 or consent of instructor. Taught: Alternate years, 4 semester credits.

## 331 CONDUCTING

Becker, Seelev

Content: Basic beat patterns, the function of the left hand, gestures, tempo, dynamics, fundamental score reading. Technique and the musical problems confronting the conductor. Intermediate concepts of score reading and conducting.

Prerequisite: Upper-division status in music. Taught: Annually, 2 semester credits.

#### 361 MUSIC AND LANGUAGE

E. Beck

Content: Writing concert and record reviews, program notes, analytical and historical descriptions, research essays. Readings by and about Richard Wagner, Bernard Shaw, Virgil Thomson, Miles Davis, Billie Holiday. Weekly writing assignments on classical, jazz, world, popular music.

Prerequisite: Consent of instructor.

Taught: Alternate years, 4 semester credits.

## 362 Topics in History and Music I

E. Beck

Content: In-depth study of one or more specific topics such as baroque performance practices, music of the Reformation, early music of England, developments in opera, or music in the church. Compositions, architecture, visual arts from the Middle Ages, Renaissance, baroque period.

Prerequisite: Music 104 or 162 or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 363 TOPICS IN HISTORY AND MUSIC II

E. Beck

Content: In-depth study of one or more specific topics such as women in music, the Age of Enlightenment, music of the romantic period. Ten major musical figures of the 19th century. Related developments in literature, painting,

Prerequisite: Music 104 or 163 or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 380 VOCAL LITERATURE

McBerry

Content: Survey of solo vocal music from 1800 through the 20th century. Style qualities, performance practices, environment in the major historical periods. Prerequisite: Upper-level voice studies.

Taught: Alternate years, 2 semester credits.

#### 383 SECONDARY CHORAL STRATEGIES AND MATERIALS

Seelev

Content: Choral literature, style, conducting techniques, organization procedures, auditioning, budgeting, staging musicals, choral pedagogy, current trends in secondary education. For students planning to teach choral music in junior high and secondary schools.

Prerequisite: Upper-division status in music. Taught: Alternate years, 2 semester credits.

#### 385 Percussion Pedagogy

Becker

Content: Principles of playing all standard orchestral percussion instruments, evaluation of methods and materials, strategies for teaching individuals and

large groups in public schools.

Prerequisite: Upper-division status in music. Taught: Alternate years, 1 semester credit.

#### 386 Brass Pedagogy

Becker

Content: Brass instruments and their fundamentals—fingerings, embouchures, hand positions, performance. Demonstrations of the teaching of brass and percussion instruments. Relationship of one brass instrument to another.

Prerequisite: Upper-division status in music. Taught: Alternate years, 1 semester credit.

## 387 STRING PEDAGOGY

Dubay

Content: Principles of playing stringed instruments, maintenance of instruments, evaluation of methods and materials, other topics relevant to precollegiate instruction.

Prerequisite: Upper-division status in music. Taught: Alternate years, 1 semester credit.

#### 388 WOODWIND PEDAGOGY

Becker

Content: Fingerings, embouchures, hand positions, acoustics, breathing, maintenance and repair, equipment, accessories, methods and materials.

Discography for flute, oboe, clarinet, bassoon, saxophone.

Prerequisite: Upper-division status in music. Taught: Alternate years, 2 semester credits.

## 389 Voice Pedagogy

McBerry

Content: Voice physiology, sound vocal exercises and techniques, problems

found in children and adolescents.

Prerequisite: Upper-division status in music. Taught: Alternate years, 1 semester credit.

#### 391 A Systematic Approach to Diction

McBerry

Content: Principles of English, French, German, Italian lyric diction.

Prerequisite: Upper-level voice studies. Taught: Alternate years, 1 semester credit.

#### 416 ADVANCED MUSICIANSHIP AND CONDUCTING

Becker

Content: Refinement of skills important to the professional musician: sightreading, conducting, score reading, aural perception, improvisation. Traditional and contemporary idioms. Opportunities to further conducting skills learned in Music 331.

Prerequisite: Music 213, 331.

Taught: Alternate years, 2 semester credits.

## 490 SENIOR PROJECT

Staff

Content: Research in musicology, ethnomusicology, or theory leading to a thesis. Preparation for a recital (performance or composition). Student teaching (secondary licensure program). Students working toward a thesis or recital primarily do independent study under faculty guidance. All students and faculty involved meet in a colloquium twice each semester to review projects in progress and consider miscellaneous current issues in music. Prerequisite: Senior standing, approval of music faculty through formal review at sophomore or junior level. Majors working toward licensure in music education substitute Education 454 (student teaching) for the senior project degree requirement.

Taught: Each semester, 2 semester credits.

## **499 INDEPENDENT STUDY**

Staff

Content: Same as Music 299 but requiring more advanced work.

Prerequisite: Consent of instructor. Taught: Annually, 2-4 semester credits.

## Performance Studies

Note: Performance Studies (MUP) courses may be repeated for credit.

#### 113 JAZZ ENSEMBLE

Becker

Content: Sight-reading, study, and performance of music representing diverse jazz styles arranged for big-band instrumentation. Styles of specific big bands, past and present. Ensemble rehearses and performs quality big-band jazz compositions and arrangements. Opportunities for solo improvisation, development of ensemble skills.

Prerequisite: Audition.

Taught: Each semester, 1 semester credit.

## 117 CAPPELLA NOVA

McBerry

Content: Singing of diverse choral music. Preparation and performance of choral literature from all stylistic periods, a cappella and accompanied. Open to all students.

Prerequisite: Audition.

Taught: Each semester, 1 semester credit.

## 118 OPERA/MUSICAL THEATRE WORKSHOP

McBerry

Content: Exercises in acting, stage movement, character development, scene studies. Exposure to standard operatic and musical theatre literature; development of singing and acting abilities in performing arias and ensembles.

Prerequisite: Audition.

Taught: Each semester, 1 semester credit.

## 119 WIND SYMPHONY/ORCHESTRA

Becker, Skipworth

Content: Wind Symphony: Diverse traditional and contemporary band literature, including occasional works for reduced instrumentation. Pursuit of high standards in preparation, performance, promotion of quality compositions and transcriptions for the wind band repertory. Orchestra: Strings, winds, brass, and percussion performing works from the standard orchestral and concerto

literature. One premiere a year and one piece by a woman composer per year. Students will play in Wind Symphony and/or Orchestra based on the needs of each ensemble.

Prerequisite: Audition.

Taught: Annually, 1 semester credit.

#### 121 GAMELAN

Staff

Content: Studies in the performance of Central Javanese music. Concert, dance, theatrical styles. New music written for gamelan from around the world. Regional stylistic variants. Cultural matters relating to music. Public per-

formance in orchestral and chamber styles.

Prerequisite: None.

Taught: Each semester, 1 semester credit each.

## 131 VOICE CLASS

McBerry

Content: Tone quality, intonation, breath control, vocal range, interpretative skills. Preparation of appropriate song literature for performance. Introduction to traditional and contemporary vocal literature. Improvement of singing skills.

Prerequisite: None. Fee.

Taught: Each semester, 1 semester credit.

#### 132 PIANO CLASS

Biel

Content: Basics of keyboard playing, emphasizing ensemble playing. Individual needs dictate content: music majors may desire basic technical and theoretical skills; nonmajors may pursue single literature of interest. Divided into sections according to student backgrounds and skills.

Prerequisite: None. Fee.

Taught: Each semester, 1 semester credit.

## 134 GUITAR CLASS

Kritzer

Content: Rudiments of musical notation and technical skills, developed through folk music. Basic folk guitar techniques learned through musical notation, tabulature, visual demonstration.

Prerequisite: None. Fee.

Taught: Each semester, 1 semester credit.

#### 135 Percussion Class

Paschal

Content: Proper techniques on all percussion instruments, rhythms and pulse, organization of a percussion section. Rehearsal of percussion duets, trios, larger ensembles.

Prerequisite: None. Fee.

Taught: Each semester, 1 semester credit.

## 136 WEST AFRICAN RHYTHMS CLASS

Content: Music of West Africa. Introduction of performance of Ghanaian drums. Singing in traditional styles.

Prerequisite: None. Fee.

Taught: Each semester, 1 semester credit.

## 137 GAMELAN CLASS

Staff

Content: Small-group instruction in advanced gamelan techniques. Focused instruction in elaborating instruments of the gamelan such as gender, rebab, gambang.

Prerequisite: Music Performance 121. Fee. Taught: Each semester, 1 semester credit.

#### 138 AFRICAN MARIMBA

N. Beck

Content: Introduction to playing techniques of African marimba.

Prerequisite: None. Fee.

Taught: Each semester, 1 semester credit.

## 139 RAGA AND TALA: MUSIC OF INDIA

Content: Introduction to the melodic and rhythmic forms of Indian music.

Prerequisite: None. Fee.

Taught: Each semester, 1 semester credit.

## 140 Intermediate Piano Class

Staff

Content: Increasing levels of musicianship and keyboard skills taught in Musical Performance 132. A higher level of technical facility introduced via exercises/studies, in addition to an increased quantity of more intricate repertoire.

Prerequisite: Music Performance 132 or audition and placement exam. Fee.

Taught: Each semester, 1 semester credit.

## 150 GHANAIAN MUSIC AND DANCE

Content: Introduction to both hand drumming and dance of Ghana,

West Africa. Prerequisite: None.

Taught: Each semester, 1 semester credit.

#### 151 Intermediate Ghanaian Dance

Addy

Content: Increasing understanding and skills taught in Music Performance 150.

Prerequisite: Music Performance 150. Taught: Annually, 1 semester credit.

## 165-196, 370-391 Private Lessons

Content: All instruments, voice, composition.

Prerequisite: None. Fee. 300 level requires consent of instructor.

Taught: Each semester, 1 semester credit.

## 215 CHAMBER MUSIC: CLASSICAL

Content: Small, select groups such as string quartets, piano trios, duos, wind quintets. Weekly coaching plus two hours of outside rehearsal required as

preparation for performance. Creativity encouraged through experimentation with unusual combinations of instruments, or the use of electronic media.

Prerequisite: Consent of instructor.

Taught: Each semester, 1 semester credit.

#### 232 KEYBOARD SKILLS

Staff

Content: Practical keyboard skills in the form of scales, arpeggios, chord progressions, sight-reading, transposition, and melody harmonization.

Prerequisite: Consent of instructor. Fee. Taught: Each semester, 1 semester credit.

## 236 West African Rhythms: Intermediate

Addv

Content: Continued study of rhythms and performance techniques of

West Africa.

Prerequisite: Music Performance 136. Taught: Each semester, 1 semester credit.

#### 293 ACCOMPANYING

McDonagh

Content: Basic accompanying and rehearsal techniques. Assignments include repertoire requested by vocal and instrumental instructors who want accompanists. Soloists rehearse in class with enrolled accompanists.

Preparation for choral and stage accompanying.

Prerequisite: Consent of instructor. Taught: Each semester, 1 semester credit.

#### 393 Vocal Coaching

Content: Texts, lyric diction, different musical styles. Coaching sessions

covering arias and art songs assigned individually. Prerequisite: Private college-level voice study. Taught: Each semester, 1 semester credit.

# Overseas and Off-Campus Programs

## DIRECTOR: LARRY A. MEYERS

As a liberal arts college committed to international education, Lewis & Clark offers an extensive program of overseas and off-campus study opportunities. Each year roughly 300 students participate in approximately 25 programs, either abroad or in selected areas of the United States. Over half of the students who graduate from Lewis & Clark will have spent at least one semester studying overseas or at a domestic off-campus location.

Overseas and off-campus programs form an integral part of the total educational experience at Lewis & Clark, supporting and enhancing on-campus curricula. Through immersion in foreign or domestic cultures, students learn firsthand about the history, culture, and contemporary issues of the area. They also gain insights into their own culture by comparing and contrasting American institutions and values to those of the host country. Recognizing the significant educational value of study in another culture, Lewis & Clark includes international studies in its General Education requirements for graduation. Most overseas programs offer courses that fulfill

Faculty also broaden their historical, cultural, and linguistic knowledge of

the world by leading overseas and off-campus programs. Many of Lewis & Clark's present faculty have led study groups, which have gone to 66 countries.

Students should start planning for overseas or off-campus study early in their college careers. Faculty advisers are prepared to offer academic advice about integrating overseas study with majors or General Education requirements. Program information and applications are available from the Office of Overseas and Off-Campus Programs.

Students may not receive transfer credit for an overseas program not sponsored by the College that occurs in the same place, at the same time, and on the same subject as a Lewis & Clark overseas program.

#### Types of Programs

Overseas and off-campus programs vary considerably in form and content. However, all normally involve language study, academic coursework, field projects, excursions, and a period of residence with host-country families.

In addition, most programs include an intensive orientation prior to departure. Returning students are expected to share their experiences with the College and the Portland community. Despite variations among programs, all belong to one of these three types.

## 1) General Culture Programs

General culture programs immerse students in a foreign culture to enable them to learn as much as possible about the area and its history and contemporary issues. At least six such semester programs, focusing on specific areas or cultures, are offered each year in Latin America, Europe, Asia, and Africa.

Since many programs are repeated annually or biennially, students may choose from a variety of programs during their four years at Lewis & Clark. Specific sites include Australia, China, Dominican Republic, East Africa, Ecuador, England, France, India, Italy, Japan, Scotland, and Spain.

## 2) Language-Intensive and Departmental Programs

These programs are open to students who meet departmental prerequisites and who are affiliated with the sponsoring department or discipline. Ongoing programs are offered in Chile and the Dominican Republic (Spanish), France and Senegal (French), Germany (German), London (fine arts), Japan (Japanese), Russia (Russian), and China (Chinese). Additional programs are offered on request by academic departments.

## 3) Off-Campus Domestic Programs

Off-campus programs are offered in New York City, to study fine arts and theatre, and in Washington, D.C., to study the U.S. government and economy.

## **ELIGIBILITY**

All students in good academic standing are eligible to apply for an overseas or off-campus program. Enrollment in an overseas or off-campus program is by selective admission. Acceptance on the program is determined by examination of academic preparation and by personal interview. If accepted and in order to participate on the program, a student must remain in good academic standing during the period between acceptance and program departure. Students on academic or disciplinary warning or probation may apply for participation but must be off probation or warning by the end of the semester preceding program departure. Students are advised that some programs have specific prerequisites and a higher minimum GPA for eligibility.

Students on all programs may earn a total of 16 semester credits per 14-week program, the amount deemed necessary to make normal progress toward an undergraduate degree. Since curricular offerings vary with the program location and academic focus, students should consider their need to fulfill major or General Education requirements in close consultation with their academic/ major adviser before applying for an off-campus program.

#### PROGRAM FEE

Students participating in off-campus study programs are charged a comprehensive fee, which covers round-trip travel, room and board, field trips, excursions, mandatory health insurance, and tuition and instruction. Not included are books, inoculations, passports, visas, International Student Identity Cards (ISICs), and incidental expenses. Round-trip travel is not included for domestic off-campus programs. Financial aid and federal Stafford Loans may be applied to the comprehensive fee.

#### APPLICATION AND SELECTION

Students apply for overseas programs by completing an application, which includes information regarding academic preparation, program objectives, a self-evaluation, release and agreement forms, and personal and academic references. Applicants are interviewed by the program leader or director. Final decisions regarding selection are made by the Office of Overseas and Off-Campus Programs.

Normally students apply one year in advance and a maximum of 25 students are selected for most programs. Application deadline for fall semester programs is late October of the academic year preceding the program. Application deadline for spring semester programs is late January of the academic year preceding the program. The application deadline for seven-week summer programs is late February of the current academic year.

#### PROGRAM PAYMENT SCHEDULE

A \$300 nonrefundable deposit must be made within 30 days of acceptance to a program. The remainder of the fee is paid on a per-semester basis according to regular on-campus billing periods and procedures.

## SCHEDULED PROGRAMS

As of publication time for this catalog, the following overseas and off-campus study programs are planned.

#### 2004-05

Language intensive: Chile: Santiago/Valparaíso, China: Beijing/Harbin, Dominican Republic: Santo Domingo, France: Nancy, Germany: Munich, Japan: Osaka, Russia: St. Petersburg, Senegal: Dakar.

Fall semester general culture: China: Guilin, Dominican Republic: Santiago, East Africa: Kenya/Tanzania, France: Strasbourg, Japan: Sapporo, Scotland: Regional Area Study.

Domestic: New York City, Washington, D.C.

Spring semester general culture: Australia: Regional Area Study, Dominican Republic: Santiago, Ecuador: Cuenca, France: Strasbourg, Spain: Seville. Summer semester: China: Guilin, Ecuador: Cuenca, Kenya: Regional Area Study, Scotland: Regional Area Study.

Language intensive: Chile: Santiago/Valparaíso, China: Beijing/Harbin, Dominican Republic: Santo Domingo, France: Nancy, Germany: Munich, Japan: Osaka, Russia: St. Petersburg, Senegal: Dakar.

Fall semester general culture: China: Guilin, Dominican Republic: Santiago, East Africa: Kenya/Tanzania, France: Strasbourg, India: Regional Area Study, Japan: Sapporo.

Domestic: New York City, Washington, D.C.

Spring semester general culture: Australia: Regional Area Study, Dominican Republic: Santiago, Ecuador: Cuenca, England: London, France: Strasbourg, Italy: Siena, one program to be announced.

Summer semester: China: Guilin, Ecuador: Cuenca, Kenya: Regional Area Study, Scotland: Regional Area Study.

#### 2006-07

Language intensive: Chile: Santiago/Valparaíso, China: Beijing/Harbin, Dominican Republic: Santo Domingo, France: Nancy, Germany: Munich, Japan: Osaka, Russia: St. Petersburg, Senegal: Dakar.

Fall semester general culture: China: Guilin, Dominican Republic: Santiago,

East Africa: Kenya/Tanzania, France: Strasbourg, Japan: Sapporo,

Scotland: Regional Area Study.

Domestic: New York City, Washington, D.C.

Spring semester general culture: Australia: Regional Area Study, Dominican Republic: Santiago, Ecuador: Cuenca, France: Strasbourg, Spain: Seville, one program to be announced.

Summer semester: China: Guilin, Ecuador: Cuenca, Kenya: Regional Area Study, Scotland: Regional Area Study.

# Philosophy

#### CHAIR: NICHOLAS D. SMITH

Philosophy is the critical examination of our most fundamental ideas about ourselves and the world. What is the nature and purpose of human life? How should we treat each other? What kind of society is best? What is our relation to nature? As individuals and as a culture, we have beliefs about these questions even if we don't talk about them. Our beliefs about them influence the way we live, personally and socially. Philosophy tries to make these beliefs evident and open to reconsideration, hoping thereby to improve human life and the chances for survival of all life on this planet.

To further those goals, philosophers often attempt to clarify and examine the basic assumptions and methods of other disciplines. Religion, the natural and social sciences, business, economics, literature, art, and education are examples of fields of study about which philosophical questions can be raised.

## THE MAJOR PROGRAM

Students major in philosophy for many reasons, and the requirements are flexible enough to accommodate different kinds of interests in philosophy. Most majors are interested in philosophical questions for personal reasons because they wish to explore questions about what is real and what is valuable, or questions about political ideals, in order to make sense of their lives. Some majors, however, hope to pursue philosophy as a profession. This means preparing for graduate work. Because of the many connections between philosophy and other disciplines, students often make philosophy part of a double major, combining it with areas such as political science, biology, psychology, religious studies, English, or economics. Philosophy is an excellent preparation for further study in almost any field. In fact, philosophy majors' scores on the GRE and LSAT are among the highest of any major.

The Philosophical Studies program of 400-level courses is determined by the developing interests of the faculty and is responsive to student interests. These courses enable juniors and seniors to do more advanced work in seminar settings in which students contribute significantly to the work of the class. The topics include the study of major thinkers of the past and present and of philosophical fields, problems, and methods.

Every semester the department offers a series of colloquia in which students can hear and discuss papers of visiting philosophers, philosophy faculty, faculty from other departments at Lewis & Clark, and fellow philosophy students.

Students interested in majoring or minoring in philosophy should consult as soon as possible with a member of the department and work closely with a faculty adviser to plan a program. Those interested in graduate school should make a special effort to become familiar with traditional questions, philosophical themes, and major figures and movements.

#### MAJOR REQUIREMENTS

A minimum of 36 semester credits (nine courses), distributed as follows:

- 1) Philosophy 101.
- 2) Philosophy 102 or 103.
- 3) One course from Philosophy 201, 202, 203, 214.
- **4)** Two courses from the history of philosophy sequence, Philosophy 301-307.
- **5)** Philosophy 310 or 311.
- **6)** Two Philosophical Studies (400-level) courses.
- 7) One course from either the history of philosophy sequence or the Philosophical Studies courses.

## MINOR REQUIREMENTS

A minimum of 20 semester credits (five courses), distributed as follows:

- 1) One course from Philosophy 101, 102, 103, 201, 202, 203, 214.
- 2) Two courses from the history of philosophy sequence, Philosophy 301-307.
- **3)** Philosophy 310 or 311.
- 4) One Philosophical Studies (400-level) course.

#### Honors

Students who are interested in graduating with honors in philosophy should consult with the department early in the fall semester of their junior year. Candidates who are accepted into the program spend one semester of the senior year writing a thesis on a basic issue in philosophy, which must be judged acceptable by the department. Students earn 4 semester credits for honors work.

#### RESOURCES FOR NONMAJORS

Because philosophy is a basic part of the liberal arts, every well-educated person should have studied it. All courses in philosophy are open to nonmajors, and very few have extensive prerequisites. However, some advanced courses may be of greater benefit to students who have done previous work in the department.

Students majoring in other disciplines will find courses that probe the philosophical foundations of their major areas of study. These are courses pertaining to mathematics, biology, psychology, arts, politics, social theory, and the relations between science and religion.

The 100- and 200-level courses are all introductory courses designed for students beginning the study of philosophy. The 100-level entry-point courses introduce students to philosophy through its main issues, those concerning good reasoning, values, reality, and knowledge. The 200-level entry-point courses introduce students to philosophy through the consideration of philosophical questions about major human concerns that arise in religion, science, art and literature, and law. The 300-level courses in the history of philosophy demand substantial reading and are open to anyone who has taken one of the introductory courses. The 300-level courses in metaphysics and epistemology build on students' previous work in the history of philosophy and in introductory courses and introduce them to current work in metaphysics

and epistemology. The 400-level Philosophical Studies courses undertake more advanced study of great philosophers, past and present, and of philosophical fields, problems, and methods.

#### **FACULTY**

Rebecca Copenhaver, assistant professor. Early modern philosophy, philosophy of mind, ethics, logic.

John M. Fritzman, associate professor. 19th- and 20th-century continental philosophy, ethics, feminist theory, social and political philosophy. Jay Odenbaugh, assistant professor. Philosophy of biology, environmental ethics, philosophy of science.

Nicholas D. Smith, James F. Miller Professor of Humanities. Ancient Greek philosophy and literature, epistemology, philosophy of religion, ethics.

#### 101 Logic

Copenhaver, Fritzman, Odenbaugh

Content: Informal and formal analyses of arguments. Aristotelian deductive logic, truth functional logic, propositional logic, other introductory topics.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 102 Introduction to Philosophy

Smith

Content: Introduction to problems and fields of philosophy through the study of major philosophers' works and other philosophical texts. Specific content varies with instructor.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## **103 ETHICS**

Copenhaver, Fritzman, Odenbaugh

Content: Study of some fundamental issues in moral philosophy and their application to contemporary life.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 201 PHILOSOPHY OF RELIGION

Smith

Content: Issues in classical and contemporary philosophical examinations of religion such as arguments for the existence of God, religious experience, religious faith, the problem of evil.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 202 PHILOSOPHY OF SCIENCE

Odenbaugh

Content: Issues concerning scientific knowledge and its epistemological and ontological implications from the perspective of the history and practice of the natural sciences such as explanation, testing, observation and theory, scientific change and progress, scientific realism, instrumentalism.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 203 PHILOSOPHY OF ART AND BEAUTY

Fritzman

Content: Theorizing about art. Puzzles in art that suggest the need to theorize; traditional discussions of art in Plato and Aristotle and critiques of them (Hume, Kant, Nietzsche, Collingwood); critical perspectives on these discussions (Danto). Specific discussions of individual arts: literature, drama,

film, music, dance, the plastic arts.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

#### 214 PHILOSOPHY OF LAW

Fritzman

Content: An inquiry into major theories of law and jurisprudence, with emphasis on implications for the relationship between law and morality, principles of criminal and tort law, civil disobedience, punishment and excuses, and freedom of expression.

Prereauisite: None.

Taught: Alternate years, 4 semester credits.

#### 301 ANCIENT WESTERN PHILOSOPHY

Content: The birth of philosophy against the background of mythic thought; its development from Socrates to the mature systems of Plato and Aristotle; their continuation and transformation in examples of Hellenistic thought. Prerequisite: Any 100- or 200-level philosophy course or consent of instructor. Taught: Alternate years, 4 semester credits.

## 302 EARLY MODERN PHILOSOPHY

Copenhaver

Content: Development of modern ideas in the historical context of 17th- and 18th-century Europe: reason, mind, perception, nature, the individual, scientific knowledge. Reading, discussing, and writing about the works of Descartes, Leibniz, Spinoza, Locke, Berkeley, Hume, Reid, and Kant. Prerequisite: Any 100- or 200-level philosophy course or consent of instructor. Taught: Alternate years, 4 semester credits.

#### 303 19th-Century Philosophy

Fritzman

Content: German Idealism: Kant, Fichte, Schelling, and Hegel, as well as the reactions of philosophers such as Kierkegaard, Schopenhauer, Marx, and

Prerequisite: Any 100- or 200-level philosophy course or consent of instructor. Taught: Alternate years, 4 semester credits.

## 305 20th-Century Analytic Philosophy

Copenhaver

Content: Beginning with Frege and Russell at the turn of the century, a look at philosophical issues concerning truth, meaning, and reality in the writings of thinkers such as Ayer, Wittgenstein, Chisholm, Carnap, Quine, and Kripke. Prerequisite: Any 100- or 200-level philosophy course or consent of instructor. Taught: Alternate years, 4 semester credits.

## 307 20TH-CENTURY CONTINENTAL PHILOSOPHY

Fritzman

Content: Examination of such key movements as psychoanalysis, phenomenology, hermeneutics and existentialism, structuralism, Marxism, poststructuralism and deconstruction, and critical theory. Prerequisite: Any 100- or 200-level philosophy course or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 310 CURRENT ISSUES IN METAPHYSICS

Copenhaver, Odenbaugh

Content: Examination of some of the following issues: reductionism, emergence and supervenience, personal identity, freedom and determinism, causality, the ontological status of moral properties, realism and antirealism, the nature of

mind and representations.

Prerequisite: Philosophy 101 required. Philosophy 201, 202, or one course in the history of philosophy sequence (301-307) recommended.

Taught: Alternate years, 4 semester credits.

# 311 CURRENT ISSUES IN EPISTEMOLOGY

Copenhaver, Smith

Content: Examination of some of the following issues: naturalistic, evolutionary, and social epistemology; moral epistemology; religious epistemology; theories of truth, of explanation, of experience and perception; relationships between theory and observation.

Prerequisite: Philosophy 101 required. Philosophy 201, 202, or one course in the history of philosophy sequence (301-307) recommended.

Taught: Alternate years, 4 semester credits.

# Philosophical Studies

The Philosophical Studies program consists of advanced courses concerning great philosophers past and present, central problems, major fields of philosophy, and/or philosophical methods. Course content is determined from year to year by the faculty with student input. No course with the same topic may be taken twice for credit. Consult the 2003-04 course listing for current offerings.

## 451 PHILOSOPHICAL STUDIES: GREAT FIGURES

Copenhaver, Fritzman, Smith

Content: Major philosophers, past and present; the historical settings in which they worked; influence of their work on contemporaries and later thinkers. Recent topics: Foucault, Sartre, Nietzsche, Heidegger, Dewey, Descartes, Plato, and Socrates.

Prerequisite: Junior standing and two courses in philosophy or consent of instructor.

Taught: Annually, 4 semester credits.

## 452 PHILOSOPHICAL STUDIES: TOPICS IN ETHICS, SOCIETY, AND POLITICS

Fritzman, Odenbaugh, Smith

Content: Classical and current philosophical problems and issues that involve the relationships between moral, social, and political thought and lives. Recent topics: Identity, Difference, and Democracy; Free Will and the Problem of Evil; Ethics and Punishment; Ancient Greek Ethical Theory.

Prerequisite: Junior standing and two courses in philosophy or consent of instructor.

Taught: Annually, 4 semester credits.

# 453 PHILOSOPHICAL STUDIES: TOPICS IN EPISTEMOLOGY, METAPHYSICS, AND THE SCIENCES

Copenhaver, Odenbaugh, Smith

Content: Influences of the sciences on fundamental philosophical questions and issues concerning knowledge, reality, and values; epistemological and ontological presuppositions of the sciences. Recent topics: The Brain Connection: Linking Genes and Behavior; Biological and Psychological Foundations of Value Theory; History and Philosophy of Mathematics.

Prerequisite: Junior standing and two courses in philosophy or consent of instructor.

Taught: Annually, 4 semester credits.

# Physical Education and Athletics

#### DIRECTOR: STEVEN F. WALLO

Physical education and physical fitness are important aspects of a curriculum that stresses the physical, mental, and social dimensions of the human experience. Integral to a liberal arts education is a recognition of the importance of health and fitness. Therefore, Lewis & Clark offers a comprehensive physical activity program that emphasizes physical fitness and the acquisition of skills and knowledge for lifelong activities.

### GRADUATION REQUIREMENT

Students are required to take two physical education/activity courses as a General Education requirement. Physical Education and Athletics courses that meet this requirement may be numbered 101, 102, or 142. Students may register for only one 101 course per semester. Up to four credits earned for 101, 102, and 142 may be applied toward total credits required for graduation.

Pamplin Sports Center and Zehntbauer Swimming Pavilion are the major indoor health and fitness facilities on campus. They house an eight-lane swimming pool, a gymnasium with three basketball courts, an extensive weight room, two saunas, and an activity room for self-defense, martial arts, and aerobics classes. Locker rooms are available for people participating in classes, recreation, and athletic events.

The football/track and field stadium features a state-of-the-art track and synthetic playing field. The campus has six tennis courts—three outdoor courts and three covered by a heated airdome. Other facilities include a softballbaseball complex and an outdoor pool, open during the summer.

The College also has waterfront docks and storage for sailing and crew on the Willamette River.

Greg Breitbach, instructor, assistant football coach.

Mike Fanger, instructor, head football coach.

David Fix, instructor, head men's and women's cross country and track and field coach.

Robert Gaillard, instructor, head men's basketball coach.

Lori Jepsen, instructor, head volleyball coach.

Kerry Kemper, sports information director.

MaryJo McCloskey, head women's golf coach.

Gerald McEldowney, instructor, associate head football coach, intramurals coordinator.

Judy McMullen, associate director of physical education and athletics.

Mark Pietrok, instructor, head athletics trainer.

Jennifer Piper, instructor, head softball coach.

Reed Rainey, instructor, head baseball coach.

Matthew Sellman, instructor, head men's and women's swim coach.

Melissa Smith, instructor, head women's basketball coach.

Patrick Smith, cohead men's golf coach.

Teresa Spillane, instructor, head men's and women's crew coach, intramurals

Gundars Tilmanis, instructor, head men's and women's tennis coach.

Don Udlock, facilities manager, club sports coordinator.

Valerie Villa, instructor, assistant athletics trainer.

Steven F. Wallo, director of physical education and athletics.

#### 101 ACTIVITIES

Staff

Content: May include aerobics, step aerobics, badminton, ballroom dancing, basketball, bowling, country and western dance, cross training, cycling, fitness walking, golf, Frisbee golf, jogging, lifeguard training, martial arts, rowing, sailing, scuba diving, skiing/snowboarding, softball, speed and agility, strength and conditioning, swim fitness, swimming, tennis, Ultimate Frisbee, volleyball, water safety instruction, weight training, women's self-defense, yoga. Focus on principles of physical fitness such as safe techniques, conditioning activities, principles of movement, importance of lifetime fitness. Student participation and attendance emphasized.

Prerequisite: None. Fees for some activities.

Taught: Annually (many activities offered each semester), 1 semester credit, credit-no credit.

## 102 VARSITY ATHLETICS

Staff

Content, fall varsity sports: Volleyball (W), football (M), cross country (M & W). Content, spring varsity sports: Swimming (M & W), basketball (M & W), tennis (M & W), track and field (M & W), softball (W), baseball (M), golf (M & W), crew (M & W).

Prerequisite: Consent of instructor.

Taught: Annually, 1 semester credit, credit—no credit.

#### 141 WILDERNESS FIRST RESPONDER

Yuska (College Outdoors)

Content: Problem-solving skills for responding to medical emergencies in the wilderness: medical knowledge, resource assessment, team management.

Exceeds requirements for National First Responder Curriculum.

Prerequisite: Consent of instructor prior to registration. Fee.

Taught: Annually, during semester break in January, 1 semester credit, credit no credit.

# 142 WILDERNESS LEADERSHIP

Yuska (College Outdoors)

Content: Leadership, followership, and decision making in a wilderness environment. Five class meetings and extensive outdoor field experience offering opportunities to develop and test interpersonal and technical skills.

Prerequisite: Consent of instructor prior to registration. Fee.

Taught: Annually during spring semester, plus a one- to two-week field course in May, 1 semester credit, credit—no credit.

#### 340 Prevention and Care of Injuries

Pietrok

Content: Introduction to athletic training, scientific background for conditioning, influence of factors on performance, psychogenic factors in sports, modalities, injury recognition, first aid techniques, protective equipment.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 405 ADVANCED ATHLETIC TRAINING

Pietrok

Content: Application of scientific foundations, use of therapeutic modalities, evaluative techniques, manufacturing of protective equipment and strapping, clinical experience.

Prerequisite: Consent of instructor. Taught: Annually, 4 semester credits.

#### 444 PRACTICUM

Staff

Content: Independent project developed under the direction of a faculty

member.

Prerequisite: Consent of instructor and department director.

Taught: Annually, 1-4 semester credits.

#### 499 INDEPENDENT STUDY

Staff

Content: Independent topic developed and researched under the direction of a

faculty member.

Prerequisite: Consent of instructor and department director.

Taught: Annually, 1-4 semester credits.

# **Physics**

CHAIR: MICHAEL BROIDE

Physics is the inquiry into the structure and organization of the universe. It is the study of forces and matter, of motion, of cause and effect, and of the intrinsic properties of space and time. It seeks to comprehend the essences of these things at the deepest level, and to use them to synthesize models of complex phenomena. The accomplishments of physics stand out among the highest achievements of human intellect and imagination, and as the discipline continues to evolve, the mysteries with which it deals are ever more intriguing. For a person planning a career in any field, a physics course is an ideal component of a liberal arts education. For one who seeks a career as a physicist, the breadth acquired in a liberal arts education augments and enhances the special training that physics requires.

The Department of Physics offers a complete program for students planning careers in physics or engineering, including a thorough preparation for graduate school or for professional engineering school. (For additional information on engineering, see the Engineering listing in this catalog.) The program is also well suited for those who plan careers in science education or in the health sciences. Special courses for students not planning a science career introduce them to the basic concepts underlying modern scientific thought.

The physics faculty have diverse interests and expertise, are active in research, and engage students in their research activities. The department is particularly active in the areas of biophysics, astrophysics, and nonlinear dynamics. Well-equipped laboratory and desk space is available for majors. The faculty strive to maintain an atmosphere of creative inquiry and informal interaction with students, and to provide an environment that stimulates students to learn from each other, including an active chapter of the Society of Physics Students (SPS).

## THE MAIOR PROGRAM

The introductory program serves students already committed to rigorous training for a professional career in physics, as well as those who are still testing their interest in physics or engineering as a profession.

The physics curriculum is highly sequential; all students contemplating the major should seek the advice of a physics faculty member as soon as possible. Transfer students and those who declare the major after the first year should consult the department chair for guidance. Upon consultation with faculty, the complete course program for a physics major can be adapted to match the goals of each student, including opportunities to participate in overseas study programs.

#### MAJOR REQUIREMENTS

A minimum of 38 semester credits in physics, plus courses in mathematics, distributed as follows:

- 1) Physics 151,\* 152, 251, 252.
- 2) Mathematics 131 and 132.
- 3) Mathematics 225, 233, 235.
- **4)** Physics 201 or 202 (taking both is recommended).
- **5)** Physics 300, 321, 331, 451.
- **6)** One course (2 semester credits) chosen from Physics 400, 490, 491.
- 7) Recommended for all majors: Computer Science 171. Mathematics 215. Two semesters of biology and/or chemistry.
- 8) Majors planning to do graduate work should also take: Physics 332, 421, 452. Mathematics 255, 431, 432, 441, 442.

Note: All majors beyond the first year are expected to attend the weekly departmental colloquium.

# MINOR REQUIREMENTS

A minimum of 24 semester credits (six courses), distributed as follows:

- 1) Physics 151, 152, 251, 252.
- 2) One lecture course selected from Physics 321, 331, 451.
- **3)** One laboratory course selected from Physics 201, 202.

#### HONORS

Physics majors in their junior year are invited to take part in the department's honors program, during the semester they are scheduled to have completed 96 semester credits, provided they have a GPA of 3.500 overall and 3.500 for all physics courses taken at Lewis & Clark. Before the end of the semester of invitation, the student selects a faculty member to supervise the research. The approved research program is completed during the senior year, and the student receives 4 semester credits in Physics 491, Honors Research, for each of the two semesters required to carry out the research. Credit in Physics 491 may be applied to the laboratory requirement of the physics major program. The designation of honors in physics requires approval of at least threequarters of the physics faculty.

#### RESOURCES FOR NONMAJORS

The department regularly offers courses geared for students majoring in disciplines outside of the mathematical and natural sciences division. These courses include Astronomy (Physics 105); Chance, Determinism, Complexity, and Meaning in Science (Physics 107); and Great Ideas in Physics (110), all of which fulfill General Education requirements in mathematical and quantitative reasoning (Category B). For students in other science departments, several other courses are valuable.

It is also possible for students majoring in other disciplines to gain a broad introduction to physics by taking an introductory sequence. Introductory General Physics I and II (141, 142) covers classical and modern physics in one year, and utilizes elementary calculus. Physics I, II, III, IV (151, 152, 251, 252) is also calculus-based and provides a two-year introduction to physics.

Chemistry, mathematics, and biology majors planning graduate study may need to take additional physics courses beyond the introductory sequence.

#### FACILITIES

The Olin Center for Physics and Chemistry has more than 40,000 square feet of classroom, laboratory, library, and study space. Facilities and equipment used by the physics department include: A research astronomical observatory • Stellar photometry research laboratory • Lecture-demonstration theatre • Extensive faculty research space • Color graphics workstations, personal computers, and peripherals throughout the building • Professionally staffed electronic and machine shops • Solar telescope and spectrograph • Special laboratories for spectroscopy, optics and holography, X-ray diffraction, modern physics, phase transition studies in liquids, biophysics using state-of-the-art optical microscopy, and solid state-low temperature physics research employing high field magnets • Advanced physics laboratory for ongoing student projects Student-faculty research laboratories and conference room.

#### FACULTY

Michael L. Broide, associate professor. Physics of colloids and macromolecules. Phase transitions, aggregation, pattern formation; light scattering and optical instrumentation; membrane biophysics.

Thomas Olsen, associate professor. Theoretical physics: atomic structure, laser physics, fluid dynamics, computational studies of complex phenomena. Bethe A. Scalettar, associate professor. Fluorescence microscopy, biophysics, optics, thermodynamics, quantum mechanics.

Herschel B. Snodgrass, professor. Astrophysics, theoretical physics, physics of the sun.

Stephen L. Tufte, assistant professor. Astrophysics, experimental physics, optics.

# 105 ASTRONOMY

Olsen, Snodgrass, Tufte

Content: For nonmajors. Present knowledge of the sun, the planets, and other objects in the solar system; of stars, star systems, galaxies, and the universe as a whole. Focus on conceptual understanding rather than on a catalog of objects. Basic laws of physics, including Newton's laws of motion and gravitation, laws governing energy and its transformations, theories of matter and radiation. How the distance, size, mass, brightness, and composition of remote objects are determined. General theory of stellar evolution including nuclear synthesis, origins of life on earth, and origin and fate of the solar system. Regular evening observations at the Karle Observatory atop the Olin Center for Physics and Chemistry.

Prerequisite: Mathematics 055 or equivalent. Mathematics proficiency should be sufficient for entry into precalculus. An advisory entrance examination may be given at the beginning of the semester.

Taught: Each semester, 4 semester credits.

# 107 CHANCE, DETERMINISM, COMPLEXITY, AND MEANING IN SCIENCE

Content: For nonmajors. The roles of chance, determinism, and complexity in science. Observation of physical systems that are best understood in terms of these concepts. Mathematical models used to further explore the utility of these concepts. Readings exploring the aptness of invocations of these concepts outside of science: LaPlace, Popper, Prigogine, and Polkinghorne. Prerequisite: Mathematics 055 or equivalent.

Taught: Annually, contingent on student interest and faculty availability, 4 semester credits.

#### 110 Great Ideas in Physics

Broide, Scalettar

Content: For nonmajors. (Formerly titled Invitation to Physics.) Essential concepts used to describe and understand the physical universe. Conservation of energy, second law of thermodynamics, entropy, theory of relativity, waveparticle duality of matter.

Prerequisite: Mathematics 055 or equivalent. Taught: Each semester, 4 semester credits.

#### 141 Introductory General Physics I

Scalettar

Content: First semester of a rigorous one-year introductory physics course aimed at life science and chemistry majors. Kinematics, vectors, force, statics, work, energy, linear and angular momentum, oscillations, fluids. Students may not earn credit for both Physics 141 and 151.

Prerequisite: Mathematics 131 (may be taken concurrently). Coregistration in Physics 171 Laboratory.

Taught: Annually, 5 semester credits.

# 142 Introductory General Physics II

Tufte

Content: Second semester of a rigorous one-year introductory physics course aimed at life science and chemistry majors. Electrostatics, magnetism, induced currents and fields, electrical circuits, wave motion and sound, light, optics, wave properties of matter, atomic physics, nuclear physics. Students may not earn credit for both Physics 142 and 152.

Prerequisite: Physics 141 or 151. Mathematics 131. Coregistration in Physics 172 Laboratory.

Taught: Annually, 5 semester credits.

# 151 Physics I: Motion

Broide

Content: The concepts and techniques required to measure, describe, and predict the motion of objects. Kinematics; description of motion in one, two, and three dimensions. Dynamics; causes of motion, including Newton's laws of motion. Momentum, work, energy, equilibrium, gravity, rotational motion. Special relativity. Students may not earn credit for both Physics 141 and 151. Prerequisite: Mathematics 131 (may be taken concurrently). Coregistration in Physics 171 Laboratory.

Taught: Annually, 5 semester credits.

### 152 PHYSICS II: WAVES AND MATTER

Scalettar

Content: Oscillating phenomena in nature and the building blocks of matter. Masses on springs, pendula, waves on strings, sound waves, light waves. Optics including the action of lenses, examples of diffraction, interference. Waveparticle duality of light and the electron. Quantum mechanics, behavior of electrons in atoms, atoms in molecules, protons and neutrons in nuclei, quarks in protons and neutrons. Students may not earn credit for both Physics 142 and 152.

Prerequisite: Physics 141 or 151. Mathematics 132 (may be taken concurrently). Coregistration in Physics 172 Laboratory.

Taught: Annually, 5 semester credits.

### 171, 172 Physics Laboratory

Content: Laboratory study of topics including kinematics, dynamics, waves, optics, modern physics.

171 to be taken with Physics 141 or 151.

172 to be taken with Physics 142 or 152.

#### 201 METHODS OF EXPERIMENTAL PHYSICS

Tufte

Content: Experience in modern experimental physics techniques including analog and digital electronics, computerized measurement. Research techniques including X-ray diffraction, IR spectroscopy, low temperature magnets, nuclear and electron resonance, optical and electron microscopy. Prerequisite: Physics 141 and 142, or 151 and 152, or consent of instructor. Taught: Annually, 4 semester credits.

#### 202 METHODS OF THEORETICAL PHYSICS

Snodgrass

Content: Survey of analytical and numerical techniques for solving problems in theoretical physics. Problems from theoretical mechanics, electromagnetism, statistical mechanics, quantum mechanics solved by mathematical techniques. Vector calculus, Taylor series, complex variables. Partial differential equations, results of Sturm-Liouville theory, orthogonal polynomials, special functions. Numerical techniques for the solution of systems of simultaneous equations, systems of coupled differential equations including boundary value problems, systems of stochastic differential equations determined by various probability distributions. Use of mathematics software (e.g., Mathematica).

Prerequisite: Physics 152. Mathematics 132.

Taught: Annually, 4 semester credits.

# 205 DEEP SPACE ASTRONOMY

Snodgrass

Content: Stars and stellar evolution. Properties of light and introduction to the theories of special and general relativity. White dwarf and neutron stars. Black holes. Galaxies and the large-scale structure of the universe. Introduction to

Prerequisite: Physics 105 or 110, or 141 or 151, or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 251 Physics III: Electromagnetism

Broide

Content: Introduction to electricity, magnetism, and their interactions. Electric fields and electric potentials. Phenomena of capacitance, currents, circuits. Forces on moving charges described in terms of the magnetic field. Effects of time-varying electric and magnetic fields, in both vacuum and matter: induction, alternating current circuits, electromagnetic waves.

Prerequisite: Physics 151. Mathematics 233 and/or Physics 202 (may be taken concurrently).

Taught: Annually, 4 semester credits.

## 252 Physics IV: Thermodynamics and Statistical Mechanics Broide

Content: The phenomena of heat from macroscopic and microscopic viewpoints. Temperature, equilibrium, thermal energy, internal energy, heat flow, entropy, extraction of work from engines. Phenomena described macroscopically by the laws of thermodynamics and microscopically by densities of accessible states, probabilities, ensembles, distribution functions. Application to the condensed states of matter and transport phenomena.

Prerequisite: Physics 152. Mathematics 233 and/or Physics 202.

Taught: Annually, 4 semester credits.

# 300 ADVANCED LAB AND COLLOQUIUM

Broide, Tufte

Content: Experiments of a significant historical nature or emphasizing important laboratory techniques. Students design and conduct two experiments per semester. Attendance at weekly physics colloquium required.

Prerequisite: Physics 201 or 202 or consent of instructor.

Taught: Each semester, 2 semester credits.

# 321 QUANTUM PHYSICS I

Snodgrass

Content: First semester of an upper-division modern physics and quantum mechanics course. Bohr atom, DeBroglie waves, orbitals, Zeeman effect, spectroscopy, wave packets, Schrodinger equation in one dimension, eigenfunctions and eigenvalues, operators, harmonic oscillator, Schrodinger equation in three dimensions, angular momentum, hydrogen atom.

Prerequisite: Mathematics 225, 235. Physics 152.

Taught: Annually, 4 semester credits.

# 331, 332 ADVANCED ELECTRICITY AND MAGNETISM I, II

Olsen

Content: Mathematical theory of electromagnetic fields. Boundary-value problem approach to electric and magnetic fields, equations of Laplace and Poisson, Maxwell's equations, electromagnetic waves. Radiation of accelerated charges and antennas, the propagation of electromagnetic radiation, interference and diffraction.

Prerequisite for 331: Mathematics 233 and/or Physics 202. Mathematics 235. Physics 251.

Prerequisite for 332: Physics 331.

Taught: 331 annually, 332 alternate years, 4 semester credits each.

# 380 Topics in Physics

Staff

Content: Application of physics concepts and techniques to the understanding of specific systems. Topic chosen from: astrophysics, atomic physics, molecular spectroscopy, solid state physics, optics, fluids, particle physics, cosmology.

Prerequisite: Physics 252 or consent of instructor.

Taught: Two out of every three years, 4 semester credits.

#### 400 ADVANCED LAB AND COLLOQUIUM

Broide, Tufte

Content: Experiments of a significant historical nature or emphasizing important laboratory techniques. Students design and conduct two experiments per semester. Attendance at weekly physics colloquium required.

Prerequisite: Physics 300.

Taught: Each semester, 2 semester credits.

# 421 QUANTUM PHYSICS II

Snodgrass

Content: Continuation of Physics 321. Interactions of electrons with electromagnetic fields, matrices, spin, addition of angular momenta, timeindependent perturbation theory, helium spectra, fine structure of atoms, molecules, time-dependent perturbation theory, radiation.

Prerequisite: Physics 321.

Taught: Annually, 4 semester credits.

#### 451 THEORETICAL DYNAMICS I

Scalettar

Content: Precise mathematical formulations of the idealized physical systems of classical mechanics and the physical interpretation of mathematical solutions. Linear oscillating systems, the two-body problem, rotating and accelerated reference frames, rotation of extended bodies, theory of scattering. Newtonian methods, methods of Lagrange and Hamilton, phase space analysis.

Prerequisite: Mathematics 235. Physics 151.

Taught: Annually, 4 semester credits.

## 452 THEORETICAL DYNAMICS II

Olsen

Content: The calculus of variations, Lagrangian and Hamiltonian mechanics, canonical transformations, Poisson brackets, nonlinear dynamics, introduction to the theory of chaos. Development of physics through minimum principles and generalized systems of coordinates, conjugate relationships between positions and momenta, and between energy and time, as these relate to the connections between the classical and quantum mechanical descriptions of the world. Phase-space notion of an attractor, characterization of strange attractors. Time series and dimensional analyses for describing chaotic systems. Prerequisite: Physics 451.

Taught: Alternate years, 4 semester credits.

# 490 Undergraduate Research and Colloquium

Staff

Content: Advanced research supervised by a sponsoring faculty member. Students conduct a preliminary literature survey; demonstrate thoughtful planning; and develop a tractable research plan, stating objectives, possible methodology, and realistic time schedule. Attendance at weekly physics colloquium required.

Prerequisite: Physics 201 or 202 and consent of department.

Taught: Annually, 4 semester credits.

## 491 HONORS RESEARCH

Staff

Content: Supervised research toward completing a project and a researchquality paper to qualify for honors in physics on graduation. Students conduct an exhaustive literature search of a research problem, perform an extensive experimental or theoretical investigation, and prepare a comprehensive report of the findings.

Prerequisite: By invitation only.

Taught: Each semester, 4 semester credits.

# Political Economy

#### COORDINATOR: MARTIN HART-LANDSBERG

The political economy minor embraces one of the world's major interdisciplinary perspectives on human phenomena. This perspective emphasizes the dynamic interaction between, and critical influence of, political and economic forces on individuals, cultures, societies, markets, states, and the global system. The intellectual reach of political economy is illustrated by the fact that the

minor includes courses drawn from anthropology, communication, economics, gender studies, history, international affairs, philosophy, political science, sociology, and teacher education.

To earn a minor in political economy, students must complete five courses: two core courses and three electives. The core courses, chosen from economics and international affairs, introduce students to various theories of political economy and examine their application to significant national and international patterns and developments. The elective courses fall into three concentrations: global, national-regional, and social and cultural. Many of these electives go beyond the material bases of power to examine how ideas, culture, discourse, gender, race, and identity can affect and interact with political and economic forces to structure varied social environments. Underlying all these courses is the premise that power—be it state power, business power, collective power, or individual power—is primarily shaped by, and operates through, political and economic systems.

Potential employers and graduate programs increasingly seek liberal arts majors who have strong analytical skills and knowledge of contemporary events; a political economy minor offers evidence of such preparation. Reflecting the sponsoring faculty's broad array of training and interests, the minor highlights a wide range of topics and applications. Examples include the connections between economic systems and political power in structuring production relations at the shop-floor, national, and international level; the relationship between governments and markets in determining national development; the relationship among gender, race, and class and an individual's position in society; the ways in which environmental issues are shaped by economic institutions; the influence of state power on the global economy; and the role of social movements in promoting economic change.

Students may enhance almost any major through the addition of a minor in political economy. Students interested in the minor are encouraged to take one of the core courses in their sophomore year. Application for admission to the minor is made in consultation with one of the program's sponsoring faculty after the student has successfully completed one of the core courses.

#### MINOR REQUIREMENTS

A minimum of 20 semester credits (five courses), distributed as follows:

- 1) Two core courses: International Affairs 340 and either Economics 240 or Economics 250.
- 2) Three courses chosen from the following three concentrations; no more than two courses may be taken from any one concentration: a) Global Concentration: Economics 232, 260; International Affairs 237, 257, 318, 341.
- b) National-Regional Concentration: Economics 280, 295; History 142, 330, 347; Political Science 317; Sociology/Anthropology 377. c) Social and Cultural Concentration: Communication 385; Economics 240, 250; Education 470; Gender Studies 440; Political Science 250, 311; Sociology/Anthropology 221, 300, 314, 340.

### SPONSORING FACULTY

Andrew Cortell, assistant professor of international affairs. Robert Goldman, professor of sociology. Eban S. Goodstein, professor of economics.

Martin Hart-Landsberg, professor of economics.

William J. Kinsella, assistant professor of communication.

Bruce M. Podobnik, assistant professor of sociology.

Zaher Wahab, professor of education.

Elliott Young, associate professor of history.

# Political Science

#### CHAIR: ROBERT M. EISINGER

Political scientists examine the theory and practice of government, law, and politics within the history of political ideas and philosophy, as well as within the context of contemporary political practices. They use the tools and methods of the social sciences to seek knowledge of political institutions and processes, and to learn how to think critically about public policies and their consequences. Political scientists attempt to evaluate how behavior (individual, group, and mass) affects political institutions, and how institutions shape and constrain political choices.

Because of their understanding and interest in political systems, students who earn degrees in political science often enter such career fields as government service, law, journalism, politics, public policy analysis, and education. Knowledge about politics often extends into other spheres, as graduates also pursue careers in medicine, business and finance, or the clergy.

Political science is often organized into fields: American government, comparative politics, political theory, public law, and international relations (covered by the Department of International Affairs). Subfields such as public administration and methodology intersect with these main areas and provide avenues for more focused and advanced specialization.

## THE MAJOR PROGRAM

The political science curriculum is organized around five fields: American government, comparative politics, political theory, public law, and methodology. Courses are offered in American government and comparative politics at the introductory and advanced levels. Courses in public law, political theory, and methodology are advanced courses, normally taken after students have completed introductory courses.

Political science majors can undertake independent study under individual faculty supervision, including practical applications and experiences such as internships with elected officials, interest groups, and government agencies. The department's annual semester of study in Washington, D.C., one of the more distinguished programs of its kind in the country, includes interviews with some of America's most influential politicians and decision makers, combined with a rigorous curriculum of in-class instruction.

The political science department uses local and regional resources with visits to the Oregon state legislature in Salem and to county and city political offices in the Portland metropolitan area. Other resources include numerous governmental agencies in the Portland area, interest groups, and political movements.

The political science curriculum is organized into the following concentrations:

## American Government and Institutions

- 101 Introduction to Politics
- 103 U.S. Government: National Politics
- 204 Urban Politics
- 205 State Politics
- 301 American Constitutional Law: Judicial Review and the Separation
- 302 Political Parties and Interest Groups

- 305 American Constitutional Law: Civil Liberties
- 307 Government and the Economy
- 350 Congressional Politics
- 351 Presidential Politics
- 359 Religion and Politics

### Comparative Politics

- 102 Comparative Political Systems
- 254 Comparative Nationalism
- 315 Transitions to Democracy
- 317 Southeast Asian Politics and Government
- 320 European Agrarian Development in Comparative Perspective
- 321 Problems of Communism and Postcommunism
- 325 Western European Politics
- 349 Canadian Politics and Government

### Political Theory

- 309 American Political Thought and Ideology
- 310 Pillars of Western Political Thought: Plato to Machiavelli
- 311 Pillars of Western Political Thought: Hobbes to Foucault
- 402 Problems in Political Theory

# Public Law, Policy, and Administration

- 250 War and Military Policy
- 255 Law, Lawyers, and Society
- 275 Gender and Politics
- 301 American Constitutional Law: Judicial Review and the Separation of Powers
- 305 American Constitutional Law: Civil Liberties
- 306 Public Administration
- 330 Natural Resource Politics
- 353 The National Policy Process
- 429 Constitutional Law and American Foreign Policy

### Methodology and Thesis

- 201 Research Methods in Political Science
- 252 Public Opinion and Survey Research
- 400 Senior Thesis

Note: Students planning to pursue a law degree, a master's degree in public administration, or a public career will find courses in public law, policy, and administration particularly useful. Students planning to attend graduate school in political science will find courses in the other three concentrations especially useful.

### MAJOR REQUIREMENTS

A minimum of 40 semester credits (10 courses), distributed as follows:

- 1) Eight courses in political science, including the following: a) Political Science 102 and Political Science 101 or 103, required of all majors, should be taken first. b) Six more courses in political science including 201 (Research Methods), at least one course in political theory, and at least one course from the American government and institutions list above (not counting 101 and 103). One international affairs course at the 200 level or higher may be substituted for one course in comparative politics. c) Political Science 201 should be taken prior to the senior year, preferably in the junior year.
- d) Political Science 400, Senior Thesis.
- 2) International Affairs 100.
- 3) Economics 100.
- **4)** In addition, the following courses are recommended: **a)** For all majors:

courses in European and U.S. history; macroeconomics; semester in Washington, D.C. b) For students planning to attend law school: courses in English literature, philosophy (including logic), mathematics, history. c) For students planning to attend graduate school in political science: courses in mathematics, statistics, other social sciences. d) For students planning a career in politics, public policy, or urban planning: courses in accounting, statistics, communication, economics, and psychology.

#### MINOR REQUIREMENTS

A minimum of 20 semester credits (five courses), distributed as follows:

- 1) Political Science 102, 310 or 311, and 101 or 103.
- 2) One course in American government and institutions selected from Political Science 204/205; 302; 307; 350; or a political science course taken in the Washington, D.C., off-campus program.
- 3) One course in public law, policy, and administration selected from Political Science 250, 305, 330.

#### PRACTICUM PROGRAM

The department encourages students to take advantage of its internships or practica. Practica prospects are announced each semester. Eligibility depends only on the student's interest in working in a public or private agency that can provide an experience related to politics, law, or administration. The department usually makes practicum arrangements, but a student's relevant community associations are considered. In the past, students have worked with city governments, law firms, civil rights groups, congressional offices, planning agencies, and state administrative agencies. Students may earn up to 4 semester credits for practica.

#### HONORS AND SENIOR THESIS

All political science majors are required to enroll in Political Science 400 (Senior Thesis) in the senior year, normally in fall semester. Majors who have achieved a GPA of 3.500 or higher in the major and overall may submit the thesis for honors consideration. After the student completes and formally presents the thesis, the political science faculty determine whether to grant honors on graduation.

### RESOURCES FOR NONMAJORS

Since political science is intrinsic to a liberal education, the department makes its courses open to all students. Political science courses guide students in using the discipline's resources and in developing descriptive, analytical, evaluative, and communicative skills needed by participants in a liberal democracy. Three courses are entrees to the field: Introduction to Politics, Comparative Political Systems, and U.S. Government: National Politics.

#### **FACULTY**

Cecilia Chessa, assistant professor. Comparative politics, postcommunist politics, transitions to democracy, nationalism.

Robert M. Eisinger, associate professor. American politics, political parties, interest groups, public opinion, research methods, religion and politics. Curtis N. Johnson, Dr. Robert B. Pamplin Jr. Professor of Government. Political theory, American government, classical studies, history of political thought.

#### 101 Introduction to Politics

Staff

Content: The principal concepts, ideas, theories, and methods of the study of the political world; the nature of political phenomena, including the ideas of the state, the citizen, government, power, decision making, conflict, and civic rights and duties. How political systems operate, how they define their priorities, how they resolve disputes among their members, and how theories of politics relate to the actual operation of different regimes. The relationship between complex political realities and the operation of the instruments of government in different times and places.

Prerequisite: None.

Taught: Annually, 4 semester credits.

### 102 Comparative Political Systems

Chessa

Content: Introduction to the central theories used in comparative politics. An examination of the manner in which new regimes are institutionalized and the factors associated with their success or failure. Application of these insights to case studies involving six countries.

Prerequisite: None.

Taught: Each semester, 4 semester credits.

### 103 U.S. GOVERNMENT: NATIONAL POLITICS

Eisinger

Content: The politics of the founding period; interactions within and among the executive, legislative, and judicial branches; the federal division of institutionalized powers; public opinion, interest groups, and political parties; the policy process in areas such as defense, welfare, civil rights and liberties, international affairs.

Prerequisite: None.

Taught: Each semester, 4 semester credits.

#### 201 RESEARCH METHODS IN POLITICAL SCIENCE

Eisinger

Content: The scope and methods of political science. Application of terms such as hypothesis, theory, validity, crosstabs, chi-square, statistical significance, regression, and correlation with an eye toward understanding rather than producing statistics. Epistemological issues raised by the behaviorist approach. Help for students choosing senior thesis topics. Prerequisite: Political Science 101 or 103. Normally taken during junior year.

Taught: Annually, 4 semester credits.

#### 204 Urban Politics

Staff

Content: The role, power, and politics of counties, cities, districts, metros. Policies, programs, and financing of police, transportation, planning, education, social services.

Prerequisite: None. Political Science 101 or 103 recommended.

Taught: Alternate years, 2 semester credits.

#### 205 STATE POLITICS

Staff

Content: The states in the federal system, their constitutions, legislatures, executive agencies, and courts as well as interest groups, parties, policy options,

Prerequisite: None. Political Science 101 or 103 recommended.

Taught: Alternate years, 2 semester credits.

#### 244 PRACTICUM

Staff

Content: Opportunities for well-prepared students to put academic concepts and techniques to work in the marketplace. Specific activities vary; usually involve work with a public agency or private group.

Prerequisite: Considerable preparation before enrollment; consult instructor

and obtain the department's instructions about the program well in advance. Taught: Annually, 2-4 semester credits.

### 250 WAR AND MILITARY POLICY

Staff

Content: The nature of war and its political, economic, moral, psychological, social, and cultural effects. U.S. military theory, institutions, policies, strategies. The military mind; nature of war; relevance of national style and heritage; weaponology; impact of militarization; parameters of war effects; options.

Prereauisite: None.

Taught: Every third year, 4 semester credits.

#### 252 Public Opinion and Survey Research

Content: The role of public opinion in the American political process; the problem of identifying the public and the extent to which this public exercises political authority; techniques of researching public opinion. Political socialization, formation of attitudes, group differences, mass opinion, elite opinion, direct action. Research design, data collection, scaling, analysis, and interpretation of data in the context of research on polling.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 254 Comparative Nationalism

Chessa

Content: Theories of nationalism and national identity. Case studies from around the globe illustrating the process of nation-state formation. Problems of conflict in multinational states. Comparison of recent nationalist movements. Prerequisite: None.

Taught: Alternate years, 4 semester credits.

#### 255 LAW, LAWYERS, AND SOCIETY

Staff

Content: The role of law in the American political system and how it shapes and is shaped by the policy process. What values are served by the legal system; what forms of justice are dispensed and to whom. Readings on legal education and reasoning and the role, function, structure of the courts. Visits to courts, law firms, prosecutors. Case studies focusing on the disputes courts are best equipped to resolve and those that should be left to legislative and administrative determination.

Prerequisite: Sophomore standing or consent of instructor.

Taught: Annually, 2 semester credits.

### 275 GENDER AND POLITICS

Content: Use of comparative and historical perspective to understand women as political actors. Notions of power, change, participation, politics. The suffrage struggle and the political situation in eastern and western Europe.

Prerequisite: None.

Taught: Every third year, 4 semester credits.

#### 290 THE SENATE: AN INSIDER'S PERSPECTIVE

Packwood

Content: An examination of what makes the U.S. Senate a unique legislative

body. Topics include the legislative process, seniority, the party caucus, the evolving constitutional functions of the Senate, institutional and structural differences between the Senate and the U.S. House of Representatives, and specific public policies that emanated from the Senate.

Prerequisite: None.

Taught: Annually, 2 semester credits, credit—no credit.

### 299 INDEPENDENT STUDY

Staff

Content: Opportunities for well-prepared students to design and pursue a substantive course of independent learning. Details determined by the student and the supervising instructor.

Prerequisite: Consent of instructor.

Taught: Each semester, 2-4 semester credits.

# 301 AMERICAN CONSTITUTIONAL LAW: JUDICIAL REVIEW AND THE SEPARATION OF POWERS

Staff

Content: A study of the U.S. Supreme Court and judicial review from 1787 to the present. An examination of the court's landmark constitutional decisions, as well as the theory and techniques of constitutional interpretation. The court's authority within the wider political and social context of American government, with emphasis on the judiciary's role in policing the separation of powers and influencing, shaping, and constraining the American political system. Discussions of actual Supreme Court rulings, majority opinions and dissenting arguments, as well as the political and historical context of those decisions in an effort to understand how and why the Supreme Court has played such an influential role in American politics and American political

Prerequisite: Sophomore standing; Political Science 101 or 103.

Taught: Annually, 4 semester credits.

# 302 POLITICAL PARTIES AND INTEREST GROUPS

Eisinger

Content: The structure and functioning of political parties from the local to the national level; organization, staffing, and policy development of parties. Pluralist analysis, group theory, impact of interest group activity on the American political system.

Prerequisite: Political Science 101 or 103. Taught: Annually, 4 semester credits.

# 305 AMERICAN CONSTITUTIONAL LAW: CIVIL LIBERTIES

Staff

Content: The Bill of Rights, theories of incorporation and application, and the ways in which the 14th Amendment fundamentally challenged and, perhaps, reconstructed the original Constitution. Focus on the First Amendment (speech, religion, and free press) and the 14th Amendment (due process, equal protection, and the privileges and immunities clauses), bringing close attention to critical issues in American politics and law, including privacy, abortion, segregation and desegregation, affirmative action, and gender discrimination. Cost-benefit analysis of accomplishing political ends through legal means.

Prerequisite: Sophomore standing; Political Science 101 or 103.

Taught: Annually, 4 semester credits.

### **306 Public Administration**

Staff

Content: Background for careers in federal, state, local, and nonprofit agencies.

Organizational structures and theory, management styles and decision-making techniques, budgeting and personnel systems, administrative law, comparative administration.

Prerequisite: Sophomore standing or consent of instructor.

Taught: Alternate years, 2 semester credits.

## 307 GOVERNMENT AND THE ECONOMY

Staff

Content: A framework for analysis of the policy-making process. History, dynamics, and trends of major U.S. economic policies. The scope of American domestic policy; subsidies and aids to business, labor, agriculture, consumers; antitrust policy and the Federal Trade Commission; public utility regulation; natural resources policies; full employment; antipoverty and defense spending. Prerequisite: Sophomore standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

# 309 American Political Thought and Ideology

Johnson, Staff

Content: The evolution of political ideas and ideologies from the prerevolutionary era through the founding period, Civil War, early 20th century, and New Deal, up to present divisions between "liberals," "conservatives," and other contemporary political orientations. Locke, Madison, Jefferson, Lincoln, Keynes, Hayek, Harrington, others. Prerequisite: Political Science 101 or 103 or consent of instructor. Taught: Alternate years, 4 semester credits.

# 310 PILLARS OF WESTERN POLITICAL THOUGHT: PLATO TO MACHIAVELLI

Johnson

Content: Political theorists and their theories, classical, early Christian, and early modern, and the potential relevance of their enterprise to ours. How we might go about our own enterprise more effectively, linking discipline and imagination. Consideration of six to eight works, in recent years including Plato's Apology, Crito, and Republic; Aristotle's Politics; works by Cicero and Polybius; St. Augustine's City of God; Machiavelli's Prince and Discourses; Hobbes's Leviathan; Locke's Second Treatise.

Prerequisite: Junior standing or consent of instructor.

Taught: Annually, 4 semester credits.

# 311 PILLARS OF WESTERN POLITICAL THOUGHT: HOBBES TO FOUCAULT Johnson

Content: Focus on works of Enlightenment, modern, and contemporary thinkers such as Hume's political writings, Rousseau's Social Contract, Marx's political ideas, Mill's On Liberty, Freud's Civilization and Its Discontents, Rawls's Theory of Justice, feminist theory (Okin, DiStefano, Harding, Elshtain), and critical theory (Rorty, Habermas, Foucault).

Prerequisite: Junior standing or consent of instructor. Political Science 310 not required.

Taught: Alternate years, 4 semester credits.

# 315 Transitions to Democracy

Chessa

Content: Analysis of different theories of democratic transitions. Cases of democratic transitions from southern and eastern Europe, Latin America, and Asia. Factors such as role of the military, economic development, civil society. Prerequisite: Political Science 102, consent of instructor.

Taught: Alternate years, 4 semester credits.

# 317 SOUTHEAST ASIAN POLITICS AND GOVERNMENT

Staff

Content: Politics and governments of Southeast Asia, as a region and in terms of selected countries (varying from year to year) among the following: Australia, Brunei, Burma, Indonesia, Kampuchea, Laos, Malaysia, New Zealand, the Philippines, Singapore, Thailand, Vietnam. The relationships among diverse histories, colonial legacies, ethnic and religious traditions, and foreign occupations in the creation of today's political dynamics and governmental configurations.

Prerequisite: Political Science 101 or 102 or consent of instructor.

Taught: Alternate years, 4 semester credits.

# 320 EUROPEAN AGRARIAN DEVELOPMENT IN COMPARATIVE PERSPECTIVE Chessa

Content: The radical transformation of agriculture and agricultural societies over the last 300 years. Comparisons of Western and non-Western societies; contrasts between revolutionary and peaceful patterns of agrarian change. Origins of the state, models of social change and development, interpretations of the nature of peasant society, rural revolutions and peasant mobilization, agrarian reform attempts.

Prerequisite: Junior standing. Recommended as a sequence with International Affairs 341.

Taught: Every third year, 4 semester credits.

#### 321 PROBLEMS OF COMMUNISM AND POSTCOMMUNISM

Chessa

Content: Introduction to the political, economic, and social issues that emerged during the institutionalization of communism in the Soviet Union and Eastern Europe. The relationship between the institutions of communism and the challenges associated with transitions to market capitalism and democracy in postcommunist contexts.

Prerequisite: Political Science 102.

Taught: Alternate years, 4 semester credits.

## 325 WESTERN EUROPEAN POLITICS

Content: The politics, institutions, and policy issues of the Western European states and the European Union. Comparisons with the countries seeking

Prerequisite: Political Science 102 or consent of instructor.

Taught: Alternate years, 4 semester credits.

### 330 NATURAL RESOURCE POLITICS

Staff

Content: The policy process examined through case studies of national and regional natural resource policies. The public policy process; history of natural resource policy, including reflection on key personalities, agencies, groups, and laws; national energy policy, including reflections on the options available; emerging policies on water, land, and environmental quality; the Columbia River system, including its development and contemporary issues; Pacific

Northwest forestry policy and its problems. Public policy as an outcome of the interactions of science, technology, values, institutions, and persons.

Prerequisite: Sophomore standing or consent of instructor.

Taught: Annually, 4 semester credits.

### 349 CANADIAN POLITICS AND GOVERNMENT

Brockett, Staff

Content: History of Canadian political institutions from early settlements through the shift from French to British control to the 1982 constitution, Canadian federalism, the parliamentary system, courts, provincial governments, parties, metropolitan patterns, domestic policies regarding native peoples, natural resources, welfare services, status of women, education, and foreign and defense policies. Field trip to Victoria, British Columbia.

Prerequisite: Political Science 101.

Taught: Alternate years, 2 semester credits.

#### 350 Congressional Politics

Eisinger

Content: Constitutional foundations and the unfolding of various concepts of legislative power throughout the 19th and 20th centuries. The dynamics of Congress, its staffing, and how it and individual members manage different visions of legislative power. Other branches of government examined to illuminate the functioning and malfunctioning of the legislative branch. Prerequisite: Sophomore standing or consent of instructor. Political Science 103 recommended.

Taught: Alternate years, 4 semester credits.

### 351 Presidential Politics

Eisinger

Content: Constitutional foundations and the unfolding of various concepts of executive power throughout the 19th and 20th centuries. The dynamics of the presidency and the extent to which one person can be held responsible for expanded responsibilities. The organizational models and practices of 20th-century presidents. Other branches of government examined to illuminate the functioning and malfunctioning of the executive branch. Prerequisite: Sophomore standing or consent of instructor. Political Science 103 recommended.

Taught: Alternate years, 4 semester credits.

# 353 THE NATIONAL POLICY PROCESS

Staff

Content: Theoretical foundations of national government and analysis of its congressional, presidential, administrative, and judicial structures. Specific public policies examined to understand the interaction of interest groups, political parties, research institutes, media, and public opinion with these structures.

Prerequisite: Political Science 103 or consent of instructor.

Taught: On Washington, D.C., program, annually, 4 semester credits.

# 359 Religion and Politics

Content: Examination of several studies measuring religiosity and how or if religious participation affects political participation. The role of the church as a political institution. Religious leaders as political leaders. Emphasis on religion in American politics.

Prerequisite: Political Science 101 or 103 or Religious Studies 101 or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 400 SENIOR THESIS

Eisinger, Johnson

Content: Choosing a definitive topic and narrowing it; developing a research design, doing the research, submitting drafts, revising drafts, polishing final copy. Presenting thesis to political science faculty and seniors for critique, rewrite of thesis. Final form due at end of semester.

Prerequisite: Political Science 101 or 103 and Political Science 102, 201.

Normally taken during fall and spring semesters of senior year.

Taught: Annually, 2 semester credits each semester for a total of 4 credits.

### 402 PROBLEMS IN POLITICAL THEORY

Johnson

Content: Advanced analysis of a specific problem, theme, or concept intriguing to political theorists. Specific content varies. Themes have included revolution, utopia, authority, the American founding, the social contract, Marx and his critics; in future may include postmodern political theory, feminist political theory, and the liberal-communitarian disputes in political theory. Prerequisite: Junior standing; open to sophomores with consent of instructor

Taught: Alternate years, 4 semester credits.

# 429 CONSTITUTIONAL LAW AND AMERICAN FOREIGN POLICY

Staff

only.

Content: An exploration of the relationship among the Constitution, law, and American foreign policy, focusing on the Constitution and the impact of the American constitutional system on the making of American foreign policy. The ways in which interpretation by all three branches of the federal government interact and influence the public's understanding and application of the Constitution.

Prerequisite: Consent of instructor.

Taught: Alternate years, 4 semester credits.

# 444 PRACTICUM

Staff

Content: Same as Political Science 244 but requiring more advanced work.

Prerequisite: Consent of instructor. Taught: Annually, 2-4 semester credits.

#### 499 INDEPENDENT STUDY

Staff

Content: Same as Political Science 299 but requiring more advanced work.

Prerequisite: Consent of instructor. Taught: Annually, 2-4 semester credits.

# Pre-Law

# COORDINATOR: ROBERT M. EISINGER

A law degree equips one for a wide variety of careers in law, business, government, and politics. The practice of law itself encompasses a multitude of variations from megafirms to solo practice, from in-house counsel to prosecutor, from policy advocate to public defender. Therefore, law schools do not require, and Lewis & Clark does not prescribe, a single course of study as prelaw preparation. Faculty advisers usually recommend courses that cultivate analytical and writing skills as excellent preparation for the Law School

Admission Test (LSAT) and for subsequent work in law school.

Recent graduates of Lewis & Clark have pursued legal education at Duke, Boston College, Emory, Cornell, Georgetown, Harvard, Tulane, Lewis & Clark Law School, and many other fine schools throughout the country. Some graduates elect to go directly into the study of law after graduation; others wait a year or two before applying to law school.

Students have gone to law school after majoring in almost every field at Lewis & Clark. The majority are from the social sciences and the humanities. Recently, more science majors have been entering the legal profession as well. Several Lewis & Clark undergraduate courses involve meetings with federal and state judges, visiting large and small law firms, guest appearances by practicing lawyers, and sharing events at the law school.

An informal pre-law society, consisting of faculty, staff, and students interested in the law, sponsors speakers and field trips, and serves as a center of communication regarding developments in the legal profession. Pre-law advisers—for example, Robert Eisinger, political science; Bob Mandel, international affairs; and Steven Hunt, communication—assist applicants regarding law school admission.

Pre-law advisers also advise students and maintain information regarding law schools, the application process, and the legal profession. Information about law school and legal careers is also available from Lewis & Clark Law School. Undergraduate students are encouraged to participate in the many public events sponsored by the law school.

Positions held by graduates include law school professor, U.S. representative, lobbyist, director of city planning, manager of a billion-dollar light rail construction project, U.S. ambassador, trial and appellate court judges, and congressional committee staffers.

# Pre-Medicine

"Pre-med" is shorthand for the academic program students take in order to prepare for careers in a variety of health professions. Graduates of Lewis & Clark College have recently entered the fields of medicine, dentistry, veterinary medicine, osteopathic medicine, medical technology, and physical therapy, after postgraduate study at professional schools such as those at Oregon Health & Science University, the University of Washington, Vanderbilt University, Harvard University, and Wake Forest University. Faculty pre-medical advisers at Lewis & Clark guide students in selection of appropriate courses through individual counseling, group information sessions, literature, and the World Wide Web. Other resources available include internships and a network of Lewis & Clark alumni working in the health professions who are willing to assist students in making career decisions.

The sequential nature of many courses required for admission to health professional schools makes careful planning and early consultation with the student's academic adviser and the chief health professions adviser— Bethe Scalettar in the physics department—essential. William Randall and Evan Williams of the chemistry department and Gary Reiness of the biology department are also knowledgeable and helpful sources of information for prehealth students. Students who plan to pursue postgraduate work in the health professions must take basic courses in biology, chemistry, mathematics, physics, and psychology at Lewis & Clark. Many health professions schools require advanced coursework in some of these areas as well. They also strongly encourage students to develop a breadth of academic and cocurricular interests. Although many pre-med students major in biology, biochemistry, or chemistry, students can enter graduate programs in the health professions with any

undergraduate major, provided they have taken the courses required by the professional schools.

# **Psychology**

# CHAIR: ERIK L. NILSEN

Psychology is the science of behavior and mental processes. The department's goals are to give students both a strong, scientifically rigorous base in the major subdisciplines of psychology and an exposure to applications of psychology. The curriculum and related activities acquaint students with the conceptual issues, theoretical models, empirical observations, and ethical decisions that form the basis of psychological knowledge. The department strives to develop students' competencies in conducting and evaluating psychological research, and many students have had the opportunity to publish papers and give presentations in conjunction with faculty. In addition, students can gain experience in applied psychology through the internship program.

### THE MAIOR PROGRAM

The major begins with the foundation courses: Introduction to Psychology, Statistics I, and Psychology Methodology. Seven other courses, chosen in conference with the major adviser, fulfill the major requirements. One course must come from each of four subdisciplinary areas: physiological and perceptual processes; cognitive processes; individual development and psychopathology; and personality and social processes.

One additional course must be a capstone course. Capstone courses are challenging, 400-level seminar courses that offer majors an integrative experience toward the end of their college careers. A capstone course may involve any of the following: integration of various sub-areas within psychology; integration of psychology and other disciplines; application of psychological principles and methods to real-world problems and/or basic scientific questions. Capstone courses typically include a major project and in-class presentation.

The final two courses may be selected from any of the intermediate (200-level), advanced (300-level), or capstone (400-level) courses. Students may arrange to take independent study courses while involved in a research project.

The mathematics requirement for the major is Mathematics 115 or its equivalent (completion of a high school calculus course with a minimum grade of B or placement into college calculus on the mathematics proficiency exam). Mathematics 115 is a prerequisite for Statistics I, Psychology Methodology, and all 300- and 400-level courses in the psychology department. Students interested in psychology as a career should seek additional mathematical training.

Transfer students must consult the department chair to determine what courses they need to take to fulfill the major requirements.

#### MAJOR REQUIREMENTS

A minimum of 40 semester credits (10 courses) in psychology, plus coursework in mathematics, distributed as follows:

- 1) Psychology 100, 200, 300.
- 2) Mathematics 115 or equivalent.
- 3) One course in physiological and perceptual processes: Psychology 315 or 350.
- **4)** One course in cognitive processes: Psychology 220 or 320.
- 5) One course in individual development and psychopathology: Psychology 230, 240, or 330.

- **6)** One course in personality and social processes: Psychology 260, 340, or 360.
- 7) One capstone course chosen from Psychology 400, 420, 430, 440, 445, 460, 490.
- 8) Two elective courses at the 200, 300, or 400 level, including a maximum of 4 semester credits for Psychology 299, 499.

# INTERNSHIP PROGRAM

The department's active internship program provides supervised experience and training in psychological activities at a variety of local social service agencies. This field experience provides an important supplement to the student's academic program.

#### HONORS

At the end of the second semester of the junior year, students may apply to participate in the psychology honors program. Selection is based on an evaluation of academic performance (a GPA of 3.500 in the major and overall) and the quality of a research proposal prepared in cooperation with a faculty member. Students work closely with a thesis committee. If the resulting honors thesis and its defense are deemed worthy of distinction by the psychology faculty, the student is awarded honors on graduation. Interested students should consult the department chair, a potential faculty sponsor, or both during the junior year. A full description of the application process is available from the department.

#### RESOURCES FOR NONMAJORS

Introduction to Psychology is a useful course for most Lewis & Clark majors, since very few disciplines can be divorced from an understanding of human behavior. Statistics courses provide useful tools that are recommended by several majors and satisfy the General Education requirement in quantitative reasoning for nonmajors and majors alike. In addition, 200-level courses are open to nonmajors who wish to pursue an interest in psychology beyond the introductory level of Psychology 100. These courses are appropriate for students interested in pursuing careers in education, business, and social services who also wish to have a foundation in the understanding of human learning, thinking, development, social interaction, and psychopathology.

Mark Becker, assistant professor. Perception, brain and behavior, statistics. Janet E. Davidson, associate professor. Developmental psychology, individual differences, aging.

Brian Detweiler-Bedell, assistant professor. Social psychology, methodology,

Jerusha Detweiler-Bedell, assistant professor. Clinical psychology, health psychology, psychology of gender.

Erik L. Nilsen, associate professor. Cognitive science, methodology, humancomputer interaction.

Thomas J. Schoeneman, professor. Personality, abnormal psychology, internships.

Yueping Zhang, assistant professor. Physiological psychology, brain and behavior, drugs and behavior.

#### 100 Introduction to Psychology

Becker, Davidson, B. Detweiler-Bedell, J. Detweiler-Bedell, Nilsen, Zhang Content: Principles underlying behavioral development and change, physiological processes that mediate psychological functioning, processes of human perception and cognition, approaches to understanding functional and dysfunctional personality characteristics of individuals, counseling and

psychotherapy techniques, application of psychological principles to social phenomena.

Prerequisite: None.

Taught: Each semester, 4 semester credits.

#### 200 STATISTICS I

Becker, B. Detweiler-Bedell

Content: The theory of statistics and designing experiments. Use of distributions, measures of central tendency, variability, correlation, t-tests, simple analysis of variance and nonparametric techniques. Computer applications using SPSS statistical analysis programs and other software.

Prerequisite: Psychology 100. Mathematics 115 or equivalent.

Taught: Each semester, 4 semester credits.

# 220 THINKING, MEMORY, AND PROBLEM SOLVING

Nilsen

Content: Application of cognitive theory to decision making and problem solving. Selective perception, memory, contextual effects on decision making, paradoxes in rationality, biases created from problem-solving heuristics, probability and risk assessment, perception of randomness, attribution of causality, group judgments and decisions.

Prerequisite: Psychology 100.

Taught: Annually 4 semester credits.

#### 230 DEVELOPMENTAL PSYCHOLOGY

Davidson

Content: Psychological development in domains including perception, cognition, language, personality, social behavior. How psychological processes evolve and change. Emphasis on infancy through childhood.

Prerequisite: Psychology 100.

Taught: Each semester, 4 semester credits.

#### 240 ABNORMAL PSYCHOLOGY

Schoeneman

Content: Issues in defining abnormality; classification and description of abnormal behaviors; societal reactions to abnormal behavior; theory and research on causes, treatments, and prevention of pathology; major psychopathologies including physical symptoms and stress reactions; anxiety, somatoform, and dissociative disorders; sexual dysfunctions; addictions; sociopathy and other personality disorders; schizophrenia; mood disorders. Prerequisite: Psychology 100.

Taught: Annually, 4 semester credits.

# 260 Social Psychology

B. Detweiler-Bedell

Content: The effects of social and cognitive processes on the ways individuals perceive, influence, and relate to others. Person perception, the self, prejudice and stereotyping, social identity, attitudes and attitude change, conformity, interpersonal attraction, altruism, aggression, group processes, intergroup conflict.

Prerequisite: Psychology 100.

Taught: Each semester, 4 semester credits.

#### 270 HEALTH PSYCHOLOGY

I. Detweiler-Bedell

Content: The interactions of psychology and health, including how thoughts,

emotions, and behavior influence health and the effects of health on psychological well-being. Emphasis on how psychological, social, and biological factors interact with and determine the success people have in maintaining their health, getting medical treatment, coping with stress and pain, and recovering from serious illness.

Prerequisite: Psychology 100.

Taught: Annually, 4 semester credits.

### 280 Brain and Behavior

Becker, Zhang

Content: An examination of how the brain controls and regulates behavior. Basic properties of neurons, neurotransmitters, and the basic anatomy of the nervous system. Emphasis on the brain's role in such functions as sensation, emotion, language, learning and memory, sexual behavior, sleep, and motivation. The biological bases of abnormal conditions, such as affective disorders, amnesia, and learning disorders.

Prerequisite: Psychology 100. Not open to students with previous credit in Psychology 350.

Taught: Annually, 4 semester credits.

### 299 INDEPENDENT STUDY

Content: Topics not covered in depth in other department courses, or facultysupervised research projects. Details determined by the student in conference with the supervising faculty member. First-year or sophomore level.

Prerequisite: Consent of instructor. Taught: Annually, 1-4 semester credits.

#### 300 Psychology Methodology

B. Detweiler-Bedell, Nilsen

Content: Research methodologies and experimental design techniques applied to laboratory investigation of psychological phenomena. Data collected from laboratory studies analyzed statistically and reported in technical lab reports.

Prerequisite: Psychology 100, 200. Mathematics 115 or equivalent.

Taught: Each semester, 4 semester credits.

## 311 STATISTICS II

B. Detweiler-Bedell

Content: Continuation of Psychology 200; emphasis on theory and experimental design. Variance, covariance, regression analyses, nonparametrics, and exploratory data analyses using the computer as a tool in psychological research (SPSS statistical analysis programs and PC/Mac packages). Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of instructor based on statistical experience.

Taught: Alternate years, 4 semester credits.

#### 315 Perception

Becker

Content: How the anatomy and physiology of sensory systems interact with expectations and prior experiences to allow the brain to perceive the world in an extremely efficient manner. Discussion of scientific methods used to investigate perception. Emphasis on visual processing, but other senses also discussed. Laboratory sections supplement lectures and readings with computer-based experiments and demonstrations.

Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of

instructor.

Taught: Annually, 4 semester credits.

# 320 Human-Computer Interaction

Nilsen

Content: Interdisciplinary examination of human factors and psychological issues in designing interactive computer systems. Design, implementation, evaluation of interactions.

Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of

instructor.

Taught: Annually, 4 semester credits.

### 330 Psychology of Aging

Davidson

Content: The literature on aging in psychology areas including physiology, perception, cognition, personality, social behavior. The life-span approach to the study of development.

Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of instructor.

Taught: Alternate years, 4 semester credits.

## 340 Personality Theory

Schoeneman

Content: Theory and research about human nature, individuality, and the causes and meaning of important psychological differences among individuals. Major theories of personality including psychoanalytic, humanistic, trait, social learning, cognitive perspectives; current topics in personality research. Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of instructor.

Taught: Annually, 4 semester credits.

#### 350 Physiological Psychology

Zhang

Content: The relationship between basic psychological processes and underlying functions of the nervous system. Biological bases of sensation, perception, motivation, emotion, learning, memory, psychopathology. Laboratory section supplementing lectures and readings with dissection of a sheep brain, computer simulations of neural processes, introduction to use of physiological monitoring equipment with humans.

Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of instructor.

Taught: Annually, 4 semester credits.

# 360 Psychology of Gender

I. Detweiler-Bedell

Content: Theory and data in the psychological development of females, their attitudes, values, behaviors, and self-image. Alternative models for increasing gender role flexibility and allowing all humans to explore their full potential. Research methodology, changing roles, androgyny, gender schema, extent and validity of gender differences. Influence of culture, socialization, and individual differences on women and men. Relationship between the psychology of gender and principles of feminism.

Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of instructor.

Taught: Annually, 4 semester credits.

# 365 ADVANCED TOPICS IN SOCIAL PSYCHOLOGY

B. Detweiler-Bedell

Content: Advanced undergraduate seminar examining current theoretical and empirical advances in social psychology. Extensive reading and discussion of primary sources focusing on three selected topics: social cognition, social influence, and group relations. Topics may include emotion, social judgment, the self, nonverbal communication, attitude change, advertising and marketing, stereotyping and prejudice, conflict resolution, interpersonal relationships, and group dynamics.

Prerequisite: Psychology 260 and 300 or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 370 CLINICAL PSYCHOLOGY

I. Detweiler-Bedell

Content: Overview of the science and practice of clinical psychology. Application of psychological science to psychotherapeutic interventions and clinical assessment. Major theories and techniques of therapeutic assessment and behavior change, including psychodynamic, humanistic, behavioral, cognitive-behavioral, family, group, and time-limited approaches, with emphasis on empirically validated treatments. Logic and methodology of psychotherapy process and outcome research. Ethical issues in therapy and assessment.

Prerequisite: Psychology 100, 200, 300 and Mathematics 115; Psychology 240; or consent of instructor.

Taught: Alternate years, 4 semester credits.

# 380 DRUGS AND BEHAVIOR

Zhang

Content: An introduction to the principles of psychopharmacology and the effects of psychoactive substances on behavior. The mechanisms of drug action with an emphasis on how drugs affect the brain. Discussion of the social and political aspects of drug abuse.

Prerequisite: Psychology 100, 200, 300. Taught: Annually, 4 semester credits.

### 400 ADVANCED TOPICS IN PSYCHOLOGY

Staff

Content: In-depth understanding of current issues and topics in psychology. Central theoretical, empirical, practical issues of each topic.

Prerequisite: Psychology 100, 200, 300. Mathematics 115 or equivalent. Consent of instructor. Psychology courses appropriate for the topic of study.

Taught: Every third year, 4 semester credits.

# 420 Perspectives in Cognitive Science

Content: Intelligent behavior in humans, robots, and computers, including the study of perception, learning, memory, attention, emotion, consciousness, and

social interaction. Draws from psychology (especially cognitive, social, and developmental psychology), philosophy, biology, and computer science. Critical analysis of the impact of computer-based models on basic and applied research, education, and human services through hands-on experience and discussion of classic and contemporary research articles. Students conduct an in-depth project and present reasearch in class.

Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of instructor.

Taught: Alternate years, 4 semester credits.

### 430 Individual Differences

Davidson

Content: Ethical problems of psychological assessment; review of basic statistical concepts; analysis of intelligence, personality, aptitude, and interest tests. Drawing inferences about human behavior through assessment techniques; writing clear and concise reports based on students' observations. Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 440 Social Construction of Madness

Schoeneman

Content: Scrutiny of historical and contemporary Western conceptions of madness. Theoretical position of social constructionism used to understand how professional taxonomies and public stereotypes of insanity are reflections of culture. Analysis of movies, fiction, poetry, drama.

Prerequisite: Psychology 100, 200, 240, 300 and Mathematics 115, or consent of instructor.

Taught: Alternate years, 4 semester credits.

# 445 PSYCHOLOGY INTERNSHIP

Schoeneman

Content: Applied field learning experience and exposure to psychologically oriented occupations. Building human relations skills; becoming acquainted with important human service institutions and their social impact. Theoretical and practical frameworks for intervention.

Prerequisite: Junior or senior standing. Psychology 100, 200, 300 and

Mathematics 115, or consent of instructor.

Taught: Each semester, 4 semester credits.

# **460 COMMUNITY PSYCHOLOGY**

I. Detweiler-Bedell

Content: Community agencies dealing with mental health, homelessness, child abuse, substance abuse, criminal justice, or AIDS. How agencies provide services to diverse populations, including the elderly, adolescents, children, gays, mentally ill, and others. The politics of funding. How grassroots organizations develop and change. Students evaluate how effectively a community agency or organization provides needed services to specific populations.

Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of instructor.

Taught: Alternate years, 4 semester credits.

# 490 Honors Thesis

Staff

Content: Independent research project suitable for the granting of departmental honors. Details determined by the student in conference with supervising faculty member and honors committee, then approved by department.

Prerequisite: Psychology 100, 200, 300 and Mathematics 115, or consent of instructor.

Taught: Each semester, 4 semester credits. May be taken twice for credit.

# 499 INDEPENDENT STUDY

Content: Same as Psychology 299 but requiring work at the junior or senior level.

Prerequisite: Consent of instructor. Taught: Annually, 1-4 semester credits.

# Religious Studies

#### CHAIR: ROBERT KUGLER

As part of the wider College program in the humanities, the academic study of religion provides an opportunity for critical reflection on a key aspect of human culture, tradition, and experience. The extraordinary role religion has played throughout history as well as in contemporary societies provides the backdrop against which this critical inquiry takes place.

The Department of Religious Studies emphasizes the careful use of critical method along with clear and extensive writing as key tools of scholarly endeavor. As in any humanities program, students are encouraged to develop analytical skills that are of value in many graduate schools and professional fields. For students interested in Judeo-Christian origins, the College offers language courses in Greek, which serve as an integral part of their study and are especially important as preparation for upper-level work.

### THE MAJOR PROGRAM

The field of religious studies is extremely diverse and thus the religious studies major is designed to give students a broad background in the field. The curriculum is organized in a series of levels:

100 level: Introduction to the academic study of religion.

200 level: Survey courses in four areas.

Area 1: Judeo-Christian origins.

Area 2: History of religions in the West.

Area 3: Islamic traditions.

Area 4: Religions of East Asia and India.

300 level: Special topics including women and religion, modern religious movements, religion and the environment, race and religion.

400 level: Upper-division seminars in biblical studies, Western religious history, Asian religions, and Islamic traditions.

#### MAIOR REQUIREMENTS

A minimum of 40 semester credits (10 courses), distributed as follows: 1) Four departmental core courses at the 200 level, with at least one from any three of the following four areas: **a)** Judeo-Christian origins. **b)** History of religions in the West. c) Islamic traditions. d) Religions of East Asia and India.

2) Three departmental courses at the 300 or 400 level (in addition to Religious Studies 401 and 490), or from the 300-level courses in the

nondepartmental elective list below. At least one must be a 450-level seminar.

- **3)** Religious Studies 401 and 490.
- 4) One elective course from any departmental offering or the following nondepartmental alternatives: **a)** Art 101, 111, 254. **b)** Greek 101, 102, 201.
- c) History 324. d) Philosophy 201. e) Political Science 359. f) Sociology/ Anthropology 251, 310.

#### MINOR REQUIREMENTS

A minimum of 20 semester credits (five courses), distributed as follows:

- 1) Three departmental core courses (200 level), excluding Religious Studies
- **2)** Two courses at the 300 or 400 level, excluding Religious Studies 499.
- **3)** Religious Studies 401 is highly recommended.

#### Honors

A two-semester honors program is available for students with outstanding records. This program involves the research, writing, and presentation of an honors thesis to departmental majors and faculty. Students seeking information on admission to the program may consult with any member of the department. An honors project may take the place of the senior project.

#### RESOURCES FOR NONMAJORS

All of the department's offerings are open to nonmajors. Preference is given to majors for enrollment in the 401 methods course and 400-level seminars.

Courses at the 100 and 200 levels are designed as introductory or survey courses, and none presumes a background in the field or any personal experience on the part of participants. These courses are designed to introduce not only the subject areas but also the methods of academic inquiry in the field of religion. The 200-level courses are organized in four areas (see above) reflecting the diversity of the world's religious traditions.

The majority of students taking religious studies courses are nonmajors pursuing elective interests. Many, however, are students whose major academic interest is in another field such as art, music, history, philosophy, or sociology, yet who find that some religious studies courses supplement and expand their understanding of their own fields.

Alan Cole, associate professor. Asian religions, Buddhism, theory. Robert Kugler, professor. Judeo-Christian origins. Dead Sea Scrolls. Paul Powers, assistant professor. Islamic studies.

Rachel M. Wheeler, assistant professor. Religion in American history, ethnicity and religion, Native American religion.

### VISITING FACULTY

Sylvia Frankel, visiting instructor. Jewish studies.

# 101 Introduction to Religion

Cole, Powers

Content: The wellspring of the world's religious traditions: the perennial issues and questions of human existence. Thematic approaches including the sense of self, the loss of innocence, loneliness and the search for community, the problem of evil, the possibility of transcendence, the reality of death, the question of hope. Critical and comparative reading of novels, short stories, plays, myths, sagas, poems from a variety of times and cultures. Introduction to the academic study of religious traditions, including the difficult problem of

defining religion itself. Religious expressions such as worship, ethical systems, myth, ritual, spiritual discipline explored using insights from the psychology, sociology, and phenomenology of religion. Comparative reading of primary texts.

Prereauisite: None.

Taught: Alternate years, 4 semester credits.

#### 222 OLD TESTAMENT

Kugler

Content: Literature of the Old Testament (Hebrew Bible) and the historical, cultural, and political situation from which it came. Modern historical-critical methods used for a deeper appreciation of the Bible's history and its impact on Western heritage. Issues arising from the biblical tradition including feminism, religion and politics, and use of the Bible in religious communities.

Prerequisite: None.

Taught: Annually, 4 semester credits.

#### 223 New Testament

Kugler

Content: Literature of the New Testament and the cultural, social, and political situation of early Christianity. Modern historical-critical methods used to focus on the interaction of early Christianity with its Jewish heritage and the Greco-Roman world into which it moved. Social and religious issues attending the emergence of Christianity including feminism, social class stratification, cultural dislocation, urbanization.

Prerequisite: None.

Taught: Annually, 4 semester credits.

# 230 Jesus: History, Myth, and Mystery

Kugler

Content: The search for the historical Jesus, one of the classical research problems in biblical studies. Consideration of skimpy, indirect, incomplete source materials; popular perceptions; anachronistic readings. History of the problem and scope and implications of contemporary research. Gospel records, evidence of other ancient sources including noncanonical gospels, and other early Christian writings, attempts in Western Christian history to address the issues.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

# 241 Religion and Culture of Hindu India

Content: Introduction to Hinduism in its Indian cultural context, with focus on theories of sacrifice, fertility, and discipline. Studies in classic Hindu sacred texts, with careful readings of myths of order and productivity. Analysis of reconstructed postcolonial Hinduism. Emphasis on studying religion from a critical and comparative perspective.

Prerequisite: None.

Taught: At least every other year, 4 semester credits.

#### 242 RELIGIONS AND CULTURES OF EAST ASIA

Cole

Content: Chinese and Japanese worldviews. Confucianism, Taoism, Buddhism, Shintoism: their origins, development, interactions. Mutual influence of folk and elite traditions, expansion of Buddhism and its adaptation to different

sociopolitical environments, effects of modernization on traditional religious institutions.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

### 243 BUDDHISM: THEORY, CULTURE, AND PRACTICE

Cole

Content: Development of Buddhism in India and Tibet with emphasis on issues of purity, power, and asceticism as they are portrayed in classic Buddhist texts. Special attention given to Buddhist institutions and their rationales. Buddhist philosophy. Critiques of 20th-century misconceptions of Buddhism.

Prerequisite: None.

Taught: Annually, 4 semester credits.

# 251 HISTORY AND THOUGHT OF WESTERN RELIGION: MEDIEVAL

Westervelt (History)

Content: Formation and development of Western Christianity from late antiquity through the late medieval period (circa 250 to 1450 C.E.). The relation of popular piety to institutional and high cultural expressions of Christianity. Issues such as Christianity and the late Roman empire, the papacy, monasticism, religious art and architecture, and heresy and hierarchy discussed using theological texts, social histories, popular religious literature. Prerequisite: None.

Taught: Alternate years, 4 semester credits.

# 253 WITCHES, PROPHETS, AND PREACHERS: RELIGION IN AMERICAN HISTORY TO THE CIVIL WAR

Wheeler

Content: Introduction to major themes and movements in American religious history from colonial origins to the Civil War. Consideration of Native American religious traditions, colonial settlement, slavery and slave religion, revivalism, religion and the revolution, growth of Christian denominationalism, origins of Mormonism, using a comparative approach in the effort to understand diverse movements. Central themes: revival and religious renewal, appropriation of Old Testament language by various groups (Puritans, African-Americans, Mormons), democratization of religion.

Prerequisite: None.

Taught: Annually, 4 semester credits.

# 254 Religion in Modern America, 1865 to Present

Wheeler

Content: Impact of religion in modern America from the end of the Civil War to the present day, emphasizing the interaction between America's many religions and emerging American modernity. The fate of "traditional" religion in modern America; "alternate" American religious traditions; urbanization, industrialism, and religion; science, technology, and secularism; evangelicalism, modernism, and fundamentalism; religious bigotry; pluralism; new religions and neofundamentalism.

Prerequisite: None.

Taught: Annually, 4 semester credits.

# **261 Introduction to Judaism**

Frankel

Content: Classical texts and selected major thinkers of the Jewish tradition. Historical overview of the biblical and rabbinic periods with a look at classic Jewish texts: the Bible, Midrash, the Mishnah, the Gemara, the legal codes, the mystical tradition, and the Responsa literature. Major Jewish thinkers such as Maimonides, Abraham Joshua Heschell, David Hartman.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 271 Introduction to Islam

Powers

Content: Introduction to the beliefs, practices, and history of Muslim peoples throughout the world. The life of the prophet Muhammad, the Qur'an, Islamic law, the Sufi mystical tradition, Shiite Islam, ritual practices, the role of women, and Islam in the modern world, including America. Emphasis on primary texts, including historical, theological, legal, and literary sources, as well as religious architecture. Themes include unity and diversity of the Islamic community, the encounter between Islam and the West.

Prerequisite: None.

Taught: Annually, 4 semester credits.

## 272 COMPARING RELIGIOUS FUNDAMENTALISMS: ISLAMIC, HINDU, AND CHRISTIAN

Powers

Content: Examination of three examples of modern religious conservatism: global Islamic resurgence, right-wing Hindu movements in India, and the Christian Right in America. Commonalities and differences in terms of historical emergence, methods, goals, gender roles, and institutional forms. Themes: the strategic interpretation of history and beliefs; the role of religious ritual; the meshing of social, political, and religious concerns; adherents' attitudes toward "outsiders"; questioning common assumptions about such movements.

Prerequisite: None.

Taught: Annually, 4 semester credits.

### 299 INDEPENDENT STUDY

Cole, Kugler, Powers, Wheeler

Content: Individual study directed by selected faculty. Determined in consultation with faculty, study focuses on bibliographic development and analysis of the literature on a topic otherwise not covered in depth in the curriculum. Major paper required.

Prerequisite: Consent of instructor. Taught: Annually, 4 semester credits.

#### 340 Women in American Religious History

Wheeler

Content: Women's experience of religion in America from the colonial era to the present. The relationship between gender and religious beliefs and practices. Religion as means of oppression and liberation of women. Relations of lay women and male clergy. Women religious leaders. Diverse movements and cultures including Native American, colonial society, immigrant communities, and radical religionists from Anne Hutchinson to Mary Daly. Prerequisite: Religious Studies 253 or 254 recommended.

Taught: Alternate years, 4 semester credits.

#### 354 EARLY MAHAYANA BUDDHISM

Cole

Content: An examination of the groundbreaking texts of early Mahayana Buddhism—their literary forms, thematic preferences, and polemical agendas. Investigation of new attitudes toward traditional sites of power as found in the Buddha's relics and the monastic sites.

Prerequisite: Religious Studies 243 or consent of instructor.

Taught: Annually, 4 semester credits.

# 366 From "Howling Wilderness" to "Mother Earth"

Wheeler

Content: Upper-level seminar intended for majors in the humanities and environmental studies. In-depth examination of the interplay of American religious traditions, including Native American, with the environment of the New World from the arrival of Europeans to the New Age and the modern environmental movement. Theological origins of colonial attitudes toward "wilderness"; Indian land use practices; the Enlightenment, Deism, and nature as revelation; Transcendentalism and the romanticization of nature; and connection between the New Age movements and modern environmentalism. Prerequisite: Religious Studies 253 or 254.

Taught: Alternate years, 4 semester credits.

# 373 THE REFORMATION IN SOCIAL PERSPECTIVE

Westervelt (History)

Content: A historical perspective on the various religious movements, collectively known as the Protestant Reformation, that marked Europe's transition from the medieval to the early modern period (circa 1400 to 1600). Review of medieval religious patterns. The status of Catholic institutions and ideas in crises of the late medieval period, the theologies of Luther and Calvin, radical movements, the political background of the Reformation, and Catholic responses to Protestantism. Readings and discussions concentrate on recent social historiography of the Reformation. Popular appeal of Protestant religiosity, social implications of Calvinism, roles of women in the Reformation, family patterns and the Reformation, class structure and competing religious cultures, Catholicism and rural society.

Prerequisite: Religious Studies 251 or consent of instructor.

Taught: Alternate years, 4 semester credits.

### 375 WOMEN IN THE ISLAMIC WORLD

Content: The complex and multifaceted role of women in the Islamic religious tradition. Major female figures (wives of the Prophet, mystic saints, reformers); Islamic understandings of gender roles; and ritual, religiolegal, and sociohistorical aspects of women's experience. Emphasis on the diverse self-understanding and self-representation of Muslim women, efforts to bring together feminist and Islamic viewpoints, and everyday life for Muslim women in a variety of contexts. Challenging the perception of Islam as necessarily antiwoman, while exploring various Muslim women's calls for change.

Prerequisite: One course in either religious studies, gender studies, or Middle East history, or consent of instructor.

Taught: Alternate years, 4 semester credits.

### 401 METHODS IN THE STUDY OF RELIGION

Cole, Powers, Wheeler

Content: Psychological, literary, sociological, and historical approaches to the study of religion. Readings by major theorists in the field. Practice in research methods, analysis, and interpretation. Designed to aid students in preparation of a prospectus for the senior thesis.

Prerequisite: Junior standing in religious studies.

Taught: Annually, 4 semester credits.

# Departmental Seminars

To give students opportunities to explore the three major areas of the

departmental curriculum in depth, seminars are offered each year in Biblical Studies, Theology and History, and World Religions. Specific content of the seminars changes from year to year. The following are among those offered during recent academic years.

# 450 SEMINAR IN BIBLICAL STUDIES: SOCIAL AND RELIGIOUS WORLD OF EARLY JUDAISM AND CHRISTIANITY

Kugler

Content: Recent research into the relationship between the social setting of early Judaism and Christianity and the texts both religions produced. Social class patterns, kinship relations, purity rituals, patronage relationships, and the characteristics of honor-shame societies along with other sociohistorical aspects of selected regional expressions of Judaism and Christianity (e.g., Asia Minor, Palestine, Egypt). Readings from the Dead Sea Scrolls, Jewish pseudepigrapha, the New Testament, and other early Christian literature. Emphasis on original student research.

Prerequisite: Religious Studies 222 or 223 or consent of instructor.

Taught: Alternate years, 4 semester credits.

# 451 SEMINAR IN AMERICAN RELIGION: THEOLOGY, AMERICAN STYLE Wheeler

Content: An exploration of major trends in American theology from the Puritans to the feminist and liberation theologies of the 20th century. Intensive reading of works by major American theologians including Jonathan Edwards, Charles Finney, Reinhold Niebuhr, James Cone, and Mary Daly. Prerequisite: Religious Studies 253 or 254 or consent of instructor.

Taught: Alternate years, 4 semester credits.

### 452 SEMINAR IN ASIAN RELIGIONS

Cole

Content: Advanced interdisciplinary seminar on the matrix of religion, politics, and literature with a focus on Asian theories of pleasure, power, and sanctity. Comparative analysis of notions of self-identity, the body, and perfection through investigation of myth and ritual.

Prerequisite: Religious Studies 242.

Taught: Annually, 4 semester credits. With instructor consent, may be taken twice for credit.

## 453 SEMINAR IN ISLAMIC STUDIES: SUFISM, THE ISLAMIC Mystical Path

Powers

Content: An exploration of the historical roots and branches of Sufi Islam, including the search for the "inner meaning" of the Qur'an, complex metaphysical formulations, ascetic exertions, meditation practices, devotional ruminations on love, and Sufi poetry and music. Discussion of the important role of Sufism in the spread of Islam. Muslim critiques of Sufism and Sufi responses.

Prerequisite: One course in religious studies or consent of instructor.

Taught: Alternate years, 4 semester credits.

# 490 SENIOR THESIS

Cole, Powers, Wheeler

Content: Individual study directed by faculty adviser. Development of a research topic, methodology, and bibliography in consultation with adviser. Lengthy thesis based on original research and analysis of a topic compatible with the adviser's expertise.

Prerequisite: Religious Studies 401 and consent of instructor.

Taught: Annually, 4 semester credits.

#### 499 INDEPENDENT STUDY

Cole, Kugler, Powers, Wheeler

Content: Individual study directed by selected faculty. Determined in consultation with faculty, study focuses on primary research, methodological concerns, and bibliography on a topic of mutual interest to the student and faculty director. Major paper required.

Prerequisite: Consent of instructor. Taught: Annually, 4 semester credits.

## Sociology and Anthropology

#### CHAIR: DEBORAH HEATH

The disciplines of sociology and anthropology share common philosophical roots and concern for the social and cultural conditions of human life, although the two fields have developed independently over the last century. Historically, sociology dwelt more on the modernizing world, while anthropology focused on nonindustrial societies. Such distinctions of subject matter no longer prevail, and the line between sociology and sociocultural anthropology today is neither firm nor fixed.

The Department of Sociology and Anthropology builds on the overlapping concerns and distinctive strengths of sociology and anthropology. Instead of maintaining separate curricula in the two fields, the department has developed a single curriculum dedicated to providing solid preparation in social theories and qualitative and quantitative methodologies. The department is strongly committed to teaching a variety of methodological perspectives including ethnographic fieldwork and interviewing; survey research techniques; texts, discourse, and the practices of representation; computer-mediated modes of inquiry; and historical methods. This methodological pluralism is in keeping with recent trends in both disciplines.

The department's curriculum stresses the relationship between cultural formations and social structures set in sociohistorical context. Among the areas of emphasis in the department are the study of inequality and difference by race, gender, class, and region. Sociology and anthropology courses in the department draw heavily on cross-cultural examples. Majors must take at least one departmental course of intensive study of a cultural region outside the United States. Students are encouraged, though not required, to participate in an overseas program. In addition to providing classroom study, the department provides majors and nonmajors opportunities to conduct field research in the Portland area, elsewhere in the United States, and abroad. All majors complete senior theses, many based on overseas work or local field research.

#### THE MAJOR PROGRAM

The department curriculum leads to a joint major in sociology and anthropology. Students with particular interests in either anthropology or sociology may weight their electives toward the field of their choice.

### MAJOR REQUIREMENTS

A minimum of 40 semester credits (10 courses), distributed as follows:

- 1) An introductory course: Sociology/Anthropology 100 or 110.
- 2) Two methodology courses: Sociology/Anthropology 200 and 201.
- 3) A social theory course: Sociology/Anthropology 300 (offered fall semester each year).
- 4) One 200-level course on a culture area, selected from Sociology/ Anthropology 266, 271, 275, 281, 285, 291.
- 5) Four topics courses including at least two at the 300 level. Students may substitute the practicum (244 or 444) for one 200-level topics course.
- 6) Senior thesis: Sociology/Anthropology 400.

#### PRACTICUM PROGRAM

The practicum in the Department of Sociology and Anthropology, formerly referred to as community internship, is open to nonmajors and majors. Students enrolled in this program select placement from a variety of community organizations and social agencies. This experience allows students to test their sociological and anthropological understanding by applying it to the world around them.

While the program is not designed to find employment for students after graduation, many students do find opportunities to continue with the internship or with similar agencies. For many students, the practicum also becomes a testing ground for their suitability for a particular profession. A wide variety of student placements are available. Recent placements include city government, district attorney's office, prisons, hospitals, community centers, schools, counseling centers, and social welfare agencies. For a full description of the program, consult the department.

#### **Honors**

The sociology/anthropology honors program encourages outstanding students to pursue in-depth independent study in an area of their interest. Students with a 3.500 GPA both in the department and overall may be considered for honors at the beginning of the first semester of the senior year. Final determination rests on department faculty members' evaluation of the completed thesis. Students whose projects are deemed worthy are granted honors on graduation.

### RESOURCES FOR NONMAJORS

The sociology/anthropology faculty see their charge as being broader than training professional sociologists and anthropologists. The department is committed to the idea that sociological and anthropological perspectives on the world are a vital part of a liberal education. Students majoring in disciplines ranging from the arts and humanities to the natural sciences find sociology and anthropology to be an illuminating complement to their major fields of study. The sociology/anthropology curriculum accommodates the varied interests of all Lewis & Clark students.

### FACULTY

Linda Isako Angst, assistant professor. Cultural anthropology, Japan; qualitative methods.

Robert Goldman, professor. Social theory, cultural studies (advertising, news, television), production and consumption, class relations, modernity, postmodernity.

Deborah Heath, associate professor. Cultural and critical theory, anthropology of the body, anthropology of science, technology and medicine, visual and

narrative representation.

Tamara Perkins, assistant professor. East Asian studies, economic sociology. Bruce M. Podobnik, assistant professor. Environmental sociology, quantitative methods, comparative revolutions, labor sociology.

#### 100 Introduction to Sociology

Goldman, Podobnik, Staff

Content: Sociological ways of looking at the world: how society is organized and operates; the relationship between social institutions and the individual; sources of conformity and conflict; the nature of social change.

Prerequisite: None.

Taught: Each semester, 4 semester credits.

### 110 Introduction to Cultural Anthropology

Angst, Heath

Content: The concept of culture and its use in exploring systems of meanings and values through which people orient and interpret their experience.

The nature of ethnographic writing and interpretation.

Prerequisite: None.

Taught: Each semester, 4 semester credits.

### 200 QUALITATIVE RESEARCH METHODS

Angst, Heath

Content: The philosophical roots of social science research, nature of research materials in the social sciences, issues involved in their collection and interpretation. Ethical dimensions of research. Ethnographic methods including participant observation, interviewing, careful attention to language. Application of these methods in research projects in the local community. Prerequisite: Sociology/Anthropology 100 or 110 or an introductory-level course in communication. Sophomore standing. Enrollment preference given to departmental majors fulfilling degree requirements.

Taught: Annually (in alternate years, once each semester), 4 semester credits.

### 201 QUANTITATIVE RESEARCH METHODS

Podobnik

Content: The survey research process, including hypothesis formation and testing, research design, construction and application of random sampling procedures, measurement validity and reliability, data analysis and interpretation. Philosophical roots and ethical considerations of survey research methods.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing. Enrollment preference given to departmental majors fulfilling degree requirements.

Taught: Annually (in alternate years, once each semester), 4 semester credits.

## 221 SOCIOLOGY OF WORK, LEISURE, AND CONSUMPTION

Goldman

Content: Historical, cultural, and organizational overview of work relations in the context of political economic systems. How technological change is related to the social organization of production relations. How work life influences relationships of authority and freedom in society. Changes in production relations related to daily life, consumption relations, and the meanings and experiences of leisure.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing.

Taught: Alternate years, 4 semester credits.

### 222 CITY AND SOCIETY

Goldman, Podobnik

Content: The nature of urban social life. Studies ranging from the United States and Europe to the Third World. The complementarity of ethnographic studies and of larger-scale perspectives that situate cities in relation to one another, to rural peripheries, and to global political-economic processes. Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing.

Taught: Alternate years, 4 semester credits.

#### 224 CRIME AND PUNISHMENT

Staff

Content: The nature and effects of punishment and rehabilitation, current societal pressures regarding punishment versus rehabilitation, and reform and change in official responses to criminal deviance. Inquiry into America's ways of responding to criminal deviance.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing. Taught: Alternate years, 4 semester credits.

### 225 RACE AND ETHNICITY IN GLOBAL PERSPECTIVE

Staff

Content: Sociological and anthropological analysis of how the notions of racial and ethnic groups, nations and nationalities, indigenous and nonindigenous groups, and states and citizenships have evolved cross-culturally. How they might be reconfiguring in the present context of economic globalization, mass migrations, and diasporic formations. Causes and consequences of the recent resurgence of ethnicity and the content, scope, and proposals of ethnic

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing. Taught: Alternate years, 4 semester credits.

#### 231 GENDER IN CROSS-CULTURAL PERSPECTIVE

Angst, Heath

Content: Gender—how maleness and femaleness are defined—as it has been socially, culturally, and historically constituted in different times and places. Theoretical developments in the anthropology of gender. Cross-cultural exploration using examples from a wide range of societies, past and present. The relationship between cultural definitions of gender and the social experience of women and men.

Prerequisite: Sociology/Anthropology 100 or 110.

Taught: Annually, 4 semester credits.

### 240 THE FAMILY IN CROSS-CULTURAL PERSPECTIVE

Angst

Content: Kinship and descent: critical assessment of these organizing principles for the self and social relations in society. The family's theoretical "core"; conjugal, extended, and recombinant families. Recent feminist scholarship on the relationship between gender and kinship studies. Cross-cultural perspective on changing patterns in the family structure. The relationship between labor and changing family roles for men, women, and children.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing.

Taught: Alternate years, 4 semester credits.

### 244 PRACTICUM

Staff

Content: Community-based experience combined with bibliographic exploration of relevant literatures. With the help of a faculty adviser, students select placement from a variety of community organizations, shelters, and social agencies. Writing reflects field experiences in the context of literature

Prerequisite: Sociology/Anthropology 100 or 110, consent of instructor.

Taught: Each semester, 1-4 semester credits.

### 251 MYTH, RITUAL, AND SYMBOL

Staff

Content: Anthropological approaches to the study of myth, ritual, and symbol. The nature of myth and ritual in a variety of cultures, including the United States. Introduction to analytical approaches to myth, ritual, and symbolic forms including functionalism, structuralism, psychoanalysis, interpretive and performative approaches.

Prerequisite: Sociology/Anthropology 100 or 110.

Taught: Alternate years, 4 semester credits.

#### 254 ECONOMY AND SOCIETY

Perkins, Podobnik

Content: An introduction to classical and contemporary perspectives about the relationship between the economy and society. How people act within the social and cultural context around them when negotiating their way through labor markets, exchanging goods, buying and selling, and calculating selfinterest. Key topics include rationality, embeddedness, networks, markets and exchange systems, institutions, and social capital.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing.

Taught: Annually, 4 semester credits.

#### 255 MEDICINE AND HEALTH CARE IN SOCIETY

Content: Culturally patterned ways of dealing with misfortune, sickness, and death. Ideas of health and personhood, systems of diagnosis and explanation, techniques of healing ranging from treatment of physical symptoms to metaphysical approaches such as shamanism and faith healing. Non-Western and Western traditions.

Prerequisite: Sociology/Anthropology 100 or 110.

Taught: Alternate years, 4 semester credits.

### 261 GENDER AND SEXUALITY IN LATIN AMERICA

Staff

Content: Exploration of gender and sexuality in Latin America through an anthropological lens. Ethnographic and theoretical texts—including testimonial and film material—dealing with the different gender experiences of indigenous and nonindigenous peoples, lowland jungle hunter-gatherers, highland peasants, urban dwellers, and transnational migrants.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing.

Taught: Alternate years, 4 semester credits.

### 266 LATIN AMERICA IN CULTURAL PERSPECTIVE

Staff

Content: Introduction to the cultures of Latin America, including highland and rain forest indigenous peoples, the African diaspora, and border studies. The role of hybridity in religion and ritual, political expression, class consciousness, cultural identities. Emphasis on gender issues. Use of ethnographic and historical readings, film, music, literature.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing.

Taught: Annually, 4 semester credits.

# 271 ISLAND SOUTHEAST ASIA IN ANTHROPOLOGICAL PERSPECTIVE

Content: Historical and cultural overview of Indonesia, Malaysia, and the Philippines from prehistoric times through the colonial period and into modern statehood. Historical and ethnographic readings covering the region's history and its economic, political, social, and religious forms.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing.

Taught: Alternate years, 4 semester credits.

### 272 CHINESE SOCIETY

Perkins

Content: The rapidly changing nature of Chinese society in the 20th and 21st centuries. Includes an exploration of contemporary Chinese society through the eyes of three generations—youth, their parents, and their grandparents. Topics covered include family, social control, political economy, revolution, migration, ethnic diversity, and forces for democratization.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing. Taught: Annually, 4 semester credits.

### 273 JAPANESE CULTURE: GENDER AND IDENTITY

Angst

Content: Historical and ethnographic approaches to the study of Japanese culture and what it means to be Japanese, with a specific focus on gender roles. Various contexts for presentation and negotiation of maleness and femaleness within Japanese culture, and implications of gender definitions for larger social systems such as family, work, nation.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing or permission of instructor.

Taught: Alternate years, 4 semester credits.

## 275 AFRICA IN SOCIAL AND CULTURAL PERSPECTIVE

Staff

Content: The diverse peoples of Africa from precolonial times to the present day. Comparisons of religion and aesthetic expression based on political, economic, and social organization. Historical and ethnographic readings challenging the stereotypical view of a continent of isolated, unchanging tribes. Processes such as migration, trade, conquest, and state formation that have brought African societies into contact with one another and with other continents since prehistoric times.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing. Taught: Alternate years, 4 semester credits.

### 281 India in Sociological Perspective

Staff

Content: Nature of social life and sources of meaning for people in India as revealed through writings of social scientists and novelists. Caste and family, religion, language, region, community. Forces for change considered throughout.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing. Taught: Alternate years, 4 semester credits.

### 285 Peoples and Cultures of Islam

Staff

Content: Introduction to the diverse cultures of Islam. Anthropological approaches to Islam as a religion. Developing a critical awareness of

stereotypical views of Muslim peoples and politics. Emphasis on gender, particularly women and Islam.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing.

Taught: Annually, 4 semester credits.

#### 291 CARIBBEAN CULTURES

Heath

Content: Political economy and social consequences of the trans-Atlantic slave trade. Social and cultural forms arising from the plantation economy and from contact between Africans and Native Americans within communities of maroons, escaped slaves. The reciprocal influence of African and American cultures in music, religion, and material culture. African-American cultures of Latin America and the Caribbean.

Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing.

Taught: Alternate years, 4 semester credits.

### 295 Anthropology of the Body

Heath, Staff

Content: Examination of the body in society. How bodies are the loci of race, class, and gender. The body as a way of examining health and healing, symbols and politics, discipline and resistance. Social and ritual functions of reproduction (including new technologies) and of adornment, scarification, other forms of bodily decoration in classic and contemporary literature, film, dance. Prerequisite: Sociology/Anthropology 100 or 110, sophomore standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

### 298 Anthropology of Socialism/Postsocialism

Hubbert

Content: Exploration of everyday life experiences under socialism and postsocialism in Europe and Asia. The effects of socialist policies on education, family life, cultural citizenship, and consumption. The transition from socialism, with an emphasis on the changing nature of class status, rise in local nationalism, nostalgia, and modernization.

Prerequisite: Sociology/Anthropology 100 or 110. Taught: Once only (fall 2003), 4 semester credits.

### 298 LAW AND SOCIETY

DasGupta

Content: A comparative introduction to the relationship between law and society, as well as to several different sociological approaches to the law. Addresses both classical (Weber, Marx) and contemporary (e.g., Dworkin, MacKinnon) theoretical approaches, including critical legal studies. Case studies of landmark rulings, with particular attention to the Civil Rights movement, women's rights, and so on. Key questions include: How do individuals experience law? What is the relationship between social activitism and rights protection? Can courts bring about social change?

Prerequisite: Sociology/Anthropology 100 or 110. Taught: Once only (spring 2004), 4 semester credits.

### 299 INDEPENDENT STUDY

Staff

Content: Independent reading and/or research in an area other than the normal course offerings of the department.

Prerequisite: Consent of department.

Taught: Each semester, 1-4 semester credits.

### 300 Social Theory

Goldman

Content: Classical origins of general methods, theories, and critical issues in contemporary social science and social thought. Early market-based social theories of Hobbes and Locke, Enlightenment social theorists such as Rousseau and Montesquieu, Burke's critique of the Enlightenment, Hegel's dialectical critique. "Classical" social theories of Marx, Durkheim, and Weber. Twentiethcentury paradigms such as symbolic interaction, structuralism, critical theory, contemporary feminist theories.

Prerequisite: Sociology/Anthropology 100 or 110, one 200-level course, and sophomore standing or consent of instructor. Enrollment preference given to departmental majors fulfilling degree requirements.

Taught: Annually, 4 semester credits.

#### 305 Environmental Sociology

Podobnik

Content: Exploration of research traditions and debates in the field of environmental sociology. How contemporary patterns of industrial production, urbanization, and consumption intensify ecological problems; why harmful effects of pollution disproportionately impact disadvantaged groups; and what kinds of social movements have mobilized to protect ecosystems and human communities from environmental degradation. Introduction to basic concepts from urban sociology, theories of social inequality, environmental justice topics, and social movements research.

Prerequisite: Sociology/Athropology 100 or 110, junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

### 310 Religion in Society

Staff

Content: Religion in its social, cultural, and historical dimensions explored in light of classical theories in the sociology and anthropology of religion. Marx, Weber, Durkheim, Freud, more recent phenomenologists. How religion defines personal and group identity. How religion contributes to social stability and serves as an agent of social change.

Prerequisite: Sociology/Anthropology 100 or 110, one 200-level course, or coursework in religious studies; junior standing.

Taught: Alternate years, 4 semester credits.

### 314 SOCIAL CHANGE

Goldman, Podobnik

Content: Social change from the social movements perspective; contradictions and crises generated between prevailing institutional forces and cultural formations; world systems models. Diasporas and migration, market forces, environmental relations, science and technology, development issues in the southern hemisphere.

Prerequisite: Sociology/Anthropology 100 or 110, one 200-level course, or junior standing.

Taught: Alternate years, 4 semester credits.

### 320 Class, Power, and Society

Goldman, Podobnik

Content: The development of class structures and contemporary structures of classes and class relations. Classical and contemporary theories of class and

inequality. Interrelationships of class, status, power, gender.

Prerequisite: Sociology/Anthropology 100 or 110, one 200-level course, or junior standing.

Taught: Alternate years, 4 semester credits.

### 324 Anthropology of Violence

Angst

Content: An upper-level introduction to the anthropology of violence, including recent literature in the field as well as classical examples of the study of violence by anthropologists. Questions of control, responsibility/ accountability, public-/private-sphere boundaries, ritual/symbolic meanings. Topics include possible biological bases of aggression; symbolic enactment of violence; nationalism and militarism; the politics of gender, race, class, and ethnic identity; state violence; human rights.

Prerequisite: Sociology/Anthropology 100 or 110, and one 200-level course. Taught: Alternate years, 4 semester credits.

### 330 INEQUALITY AND STRATIFICATION IN CHINA

Perkins

Content: The causes and consequences of inequalities on the basis of gender, ethnicity, wealth, occupation, and power in contemporary China. How cultural and political legacies, market forces, the welfare and education systems, and geography—as well as the complex interrelationships among these factorscontribute to inequality, stratification, and the rise of new classes. The responses of government and nongovernmental organizations to inequality. Prerequisite: Sociology/Anthropology 100 or 110, and one 200-level course. Taught: Annually, 4 semester credits.

### 340 POLITICS AND SOCIETY

Podobnik

Content: The structures and interrelationships of power, the state, and their relationship to civil society. Studies of state-building, community and national power, elites, the public sphere, and social movements of the left and right examined in light of classical and contemporary theories of the state. Prerequisite: Sociology/Anthropology 100 or 110, one 200-level course, or iunior standing.

Taught: Alternate years, 4 semester credits.

### 345 FILM, TEXT, AND CULTURE

Heath, Staff

Content: Representation in the study of culture. The contrasting capacities of different film and written genres in the construction of ethnographic documents. Epistemological issues arising from fieldwork experience. Comparison of films and written works from traditional ethnographies to biographies, fiction, travelers' accounts.

Prerequisite: Sociology/Anthropology 100 or 110, or consent of instructor. Taught: Alternate years, 4 semester credits.

### 350 GLOBAL INEQUALITY

Podobnik

Content: Issues in the relationships between First World and Third World societies, including colonialism and transnational corporations, food and hunger, women's roles in development. Approaches to overcoming problems of global inequality.

Prerequisite: Sociology/Anthropology 100 or 110, one 200-level course, or junior standing.

Taught: Alternate years, 4 semester credits.

### 370 American Advertising and the Science of Signs

Goldman

Content: Advertising as a core institution in producing commodity culture in the United States. Meaning and language of photographic images. History and theory of U.S. commodity culture. Methods of encoding and decoding in print and television ads. How mass-mediated images condition the ideological construction of gender relations in society.

Prerequisite: Sociology/Anthropology 100 or 110, one 200-level course, junior standing or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 375 From Modernity to Postmodernity

Content: Mapping the world-historical changes in social, economic, and cultural organization that theorists call postmodernity. The transition from modernity to postmodernity; transformations in the political economy of technoscience and the information society; development of a society of the spectacle; shifting conceptions of identity and agency; relations of time, space, and commodification in the era of global capitalism. May include Antonio Gramsci, Walter Benjamin, Stuart Hall, Michael Foucault, Manuel Castells, Zygmunt Bauman, Judith Butler, Guy Debord, Jean Baudrillard, Donna Haraway, David Harvey, Paul Virilio, and Celeste Olaquiaga. Prerequisite: Sociology/Anthropology 300; junior-senior standing or consent of instructor. Students must have some theory background and may demonstrate

it using other courses at Lewis & Clark as substitute prerequisites.

Taught: Alternate years, 4 semester credits.

### 377 Postcolonial Identity in Latin America

Content: The politically and historically vital issues of identity in Latin America, including ethnicity, nationalism, and gender. Theoretical tools for understanding these issues in other contexts. Through theoretical essays, ethnography, primary documents, and films and novels by Latin Americans exploring identity issues, the critical skills to analyze postcoloniality, subject formation, and processes of political organizing around "strategic essentialisms." The multiple forms of resistance, accommodation, and hybridization that accompany the meetings of many worlds on the terrain of the Americas. Prerequisite: Sociology/Anthropology 100 or 110; Sociology/Anthropology 266 or History 141 or 142 or consent of instructor.

Taught: Annually, 4 semester hours.

### 390 Cyborg Anthropology

Heath

Content: Cultural practices surrounding the production and consumption of technoscientific and biomedical knowledge. Articulation between different constituencies, both inside and outside the scientific community, and the asymmetries that shape their relations. Heterogeneity of science, including contrasts between disciplinary subcultures and different national traditions of inquiry. Political economy of science, including the allocation of material and symbolic resources. Networks of associations that link human and nonhuman allies, such as medical prosthesis, robotics, information. Representation of science and technology in popular culture.

Prerequisite: Sociology/Anthropology 100 or 110. Taught: Alternate years, 4 semester credits.

#### 400 SENIOR SEMINAR AND THESIS

Staff

Content: Advanced readings and major works in sociology and anthropology. In consultation with faculty, selection of a thesis topic; further reading in the disciplines and/or field research in the local area. Substantial written document demonstrating mastery of theory and methodology and the ability to integrate these into the thesis topic.

Prerequisite: Senior standing.

Taught: Each semester, 4 semester credits.

### 444 PRACTICUM

Staff

Content: Same as Sociology/Anthropology 244 but requiring more advanced

Prerequisite: Junior standing, consent of instructor. Taught: Each semester, 1-4 semester credits.

### 499 INDEPENDENT STUDY

Staff

Content: Advanced-level independent reading and/or research in an area other

than the normal course offerings of the department. Prerequisite: Junior standing, consent of department.

Taught: Each semester, 1-4 semester credits.

## Theatre

### CHAIR: STEPHEN WEEKS

The Department of Theatre offers study in dramatic literature, theatre history, acting, directing, playwriting, design, technical theatre, and dance. Theatre students are required to participate broadly in the curriculum. The department maintains an active production program, which includes Main Stage productions (one each semester), one-act festivals in the Black Box theatre, latenight theatre, and dance performances. Theatre study at Lewis & Clark encourages excellence in all aspects of performance—both in front of and behind the scenes—combined with an understanding of the aesthetic, social, philosophical, and historical underpinnings of the art form. The department's goal is to educate artist-scholars who are well-rounded, well-trained, and intellectually informed.

Our production program offers opportunities for student directors, designers, choreographers, dramaturgs, and playwrights, as well as student actors. The spring one-act festival, for example, normally consists of plays written, directed, acted, and designed by students. Opportunities for playwriting and choreography are available through formal classes, independent study, and the production program. Student dramaturgs assist with Main Stage productions.

Main Stage shows are directed by faculty members and visiting artists. Plays are chosen for their contribution to theatre studies and to the life of the College, as well as for their responsiveness to issues of concern, either on campus or in society. Participation in our productions is open to the entire campus, and the department endorses a policy of color-blind casting.

Off-campus programs emphasizing theatre, art, and music are held annually in New York and biennially in London. The New York program includes internships at institutions such as the Atlantic Theatre Company, Lincoln Center, and the Acting Company.

Lewis & Clark students are encouraged to take advantage of the many opportunities to see professional theatre and dance in Portland. Internships with some Portland theatres are available.

Dance students have the opportunity to participate in the annual Northwest Regional American College Dance Festival during spring semester. Student choreography can be presented for adjudication at the festival, which offers classes, workshops, and performances over four days.

Students majoring or minoring in theatre must fulfill the College's Creative Arts requirement outside the department—in art, creative writing, or music and are strongly urged to pursue further studies in other areas of the arts.

### THE MAJOR PROGRAM

Students interested in a theatre major are encouraged to participate in theatre department courses or activities in their first year and to consult with a member of the theatre faculty. Students should declare the theatre major by the end of the sophomore year.

The theatre department offers a balanced major that gives students flexibility in determining an area of emphasis. All theatre majors are required to take courses in dramatic literature and theatre history, theatre theory, performance, design, and dance or movement. All theatre majors complete a senior thesis. Students majoring in theatre must choose a concentration either in dramatic literature/theatre history or performance. Students with particular interests in design have the opportunity to substitute some design courses for performance courses within the performance concentration.

### MAJOR REQUIREMENTS: CONCENTRATION IN LITERATURE/THEATRE HISTORY

A minimum of 44 semester credits, distributed as follows:

- 1) Sixteen semester credits in dramatic literature/theatre history. Four semester credits in premodern drama: Theatre 281 or 282; 4 semester credits in American drama: Theatre 382; and 8 semester credits chosen from Theatre 283, 381,
- 2) Sixteen semester credits in performance and design. Twelve semester credits in performance chosen from Theatre 113, 213, 275, 301, 313, 356, or 351-353; 4 semester credits in design chosen from Theatre 104, 203, 215, 224, 226, 234, or 314.
- **3)** Four semester credits in theatre and performance theory: Theatre 340.
- 4) Two semester credits in dance chosen from Theatre 106, 107, 108, 207, 208, 209, 214, 308, or 350.
- **5)** Two semester credits in theatre laboratory: Theatre 110.
- **6)** Four semester credits in the capstone course: Theatre 450.

### Major Requirements: Concentration in Performance

A minimum of 44 semester credits, distributed as follows:

- 1) Sixteen semester credits in performance chosen from Theatre 113, 213, 275, 301, 313, 356, or 351-353.
- 2) Twelve semester credits in dramatic literature/theatre history. Four semester credits in premodern drama: Theatre 281 or 282; 4 semester credits in American drama: Theatre 382; and 4 semester credits chosen from Theatre 283, 381, or 385.
- 3) Four semester credits in design chosen from Theatre 104, 203, 215, 224, 226, 234, or 314.
- **4)** Four semester credits in theatre and performance theory: Theatre 340.
- **5)** Two semester credits in dance chosen from Theatre 106, 107, 108, 207, 208, 209, 214, 308, 350.
- **6)** Two semester credits in theatre laboratory to be completed by the end of

the junior year: Theatre 110.

7) Four semester credits in the capstone course: Theatre 450.

#### MINOR REQUIREMENTS

A minimum of 24 semester credits, distributed as follows:

- 1) Eight semester credits in dramatic literature/theatre history chosen from Theatre 281, 282, 283, 381, 382, or 385.
- 2) Fourteen semester credits of electives in dramatic literature/theatre history, performance, design, technical theatre, or dance.
- 3) Two semester credits in theatre laboratory: Theatre 110.

#### Honors

To qualify for honors candidacy, students must show outstanding promise in one or more of the following areas:

- 1) Performance: directing or playwriting.
- 2) Theatre technology and design: design and construction of sets or costumes, design and operation of light and sound systems.
- **3)** Theatre and drama: theatre history or criticism.

The required GPA is 3.500 in the major and overall. Normally, qualified students should apply for candidacy during the junior year, no later than two semesters prior to graduation. Students in directing should apply early enough to fit their projects into the production schedule for the following year. Transfer students must have completed two semesters of academic residence at Lewis & Clark and should submit a transcript or other evidence of achievement at the time of application. Students who wish to pursue honors in theatre should seek further information from the department.

### RESOURCES FOR NONMAJORS

The following courses are appropriate for general students:

104 Stage Makeup

106 Fundamentals of Movement

107 Ballet I

108 Contemporary Dance Forms I

110 Theatre Laboratory

113, 213 Acting I, II

203 Technical Drawing

214 Dance History and Performance Criticism

215 Costume History and Design

234 Stage Lighting

275 Introduction to Playwriting

281-283 Theatre and Society I-III

351–353 Rehearsal and Performance I–III.

#### FACILITIES

The theatre building at Lewis & Clark is one of the finest teaching facilities for theatre in the Pacific Northwest. It is an integrated facility designed to support a process-oriented program. The building contains the 225-seat Main Stage and a studio theatre (Black Box) with flexible seating arrangements for up to 125. It also houses complete production facilities, including a scenery shop, a design studio, a costume construction room, dressing rooms, rehearsal areas, and a student lounge, the Green Room.

### **FACULTY**

Stephanie K. Arnold, professor. Greek drama, modern European drama, American drama, criticism, women playwrights, acting, directing, movement. Susan E. Davis, lecturer and program head of dance. Ballet, contemporary dance forms, fundamentals of movement, composition, movement for actors, history/performance critique, improvisation.

John W. Gerth, associate professor. Scene design, costume design, lighting design, technical management.

Stepan Simek, assistant professor. Acting, directing, European drama. Stephen Weeks, associate professor. Playwriting, modern drama, directing, acting, British drama, dramaturgy.

### 104 STAGE MAKEUP

Gerth

Content: Principles and techniques of stage makeup, based on play and character analysis. Exercises to develop and refine the skill for actor, director, or makeup designer. Daily assignments, short paper critiquing the makeup skill of an off-campus production.

Prerequisite: None.

Taught: Alternate years, 2 semester credits.

#### 106 FUNDAMENTALS OF MOVEMENT

Content: Use of guided movement explorations, partner work, readings, and discussions to explore structural and functional aspects of the body and anatomy with the goal of increasing ease of movement and physical coordination. Breath, mobility/stability, relaxation, spinal support, massage, pelvic placement, rotation, healthy sequencing of arms and legs. Basic elements of the bone, muscle, and organ systems; relationship between the body and psychological and emotional patterns. Extensive journal writing. Prerequisite: None.

Taught: Alternate years, 2 semester credits.

### 107 BALLET I

Davis

Content: Introduction to basic ballet principles, steps, and vocabulary. Correct alignment, placement, mobility; increasing flexibility, balance, strength, coordination, control. Barre warm-up, center floor and traveling combinations, general introduction to ballet history and aesthetics. Readings in related historical material; writing critique of live performance. Live music accompaniment.

Prereauisite: None.

Taught: Annually, 2 semester credits.

### 108 CONTEMPORARY DANCE FORMS I

Davis

Content: Introduction to modern and postmodern dance forms, physical techniques, and principles. Emphasis on the conceptual nature of contemporary dance since the 1960s. Movement skills and perspectives in relation to historic and aesthetic ideas that fostered them. Development of sound body mechanics, strength, flexibility, control, momentum, movement quality, musicality, personal movement resources. Viewing live and videotaped performances. Short readings on dance history and theory. Live music accompaniment.

Prerequisite: None.

Taught: Annually, 2 semester credits.

### 110 THEATRE LABORATORY

Gerth

Content: Behind-the-scenes work in the theatre. Participation on a shop production crew that transforms the vision of a director and designer into a reality on stage. Arranged work schedule plus five hours of required orientation for students with little or no experience in backstage work. Orientations to be held on Monday afternoons from 4:30 to 5:30 p.m., beginning the second week of the semester.

Prerequisite: None.

Taught: Each semester, 1-2 semester credits.

### 113 ACTING I, FUNDAMENTALS

Arnold, Simek, Weeks

Content: The fundamentals of acting, including physicalization, text analysis, objectives and actions, and rehearsal techniques. Development of skills through class exercises and the rehearsal and performance of short projects and two-character scenes. Writing assignments including script analyses, character biographies, peer reviews, performance reviews, observation exercises, and journals.

Prerequisite: None.

Taught: Each semester, 4 semester credits.

#### 203 TECHNICAL DRAWING

Content: Study of technical drawing, the vehicle through which the vision of the stage designer finds material realization. The process of transforming design concepts into practical working drawings, side-section elevations, and ground plans. Emphasis on skills and on the role of technical drawing in the overall artistic process. Readings, daily exercises, midterm and final projects.

Prerequisite: None.

Taught: Alternate years, 2 semester credits.

### 207 BALLET II

Davis

Content: More difficult exercises for improving alignment, balance, rotation, flexibility, strength, coordination, mobility. Increased focus on quality of movement, musicality, interpretation. Barre warm-up, more extensive development of center floor and traveling combinations. Ballet history, aesthetics, criticism addressed through video and live performance viewings, readings, writing. Live music accompaniment.

*Prerequisite:* Theatre 107 or dance experience.

Taught: Annually, 2 semester credits. May be taken twice for credit.

### 208 CONTEMPORARY DANCE FORMS II

Davis

Content: Deepening exploration of physical techniques, historic events, and aesthetic concerns that shape contemporary dance today. Kinesthetic awareness, momentum, phrasing, weight sharing, authentic gesture, basic performance skills. Exploring basic improvisation and composition skills to give form to spontaneous and intuitive movement impulses. Reading, writing, viewing live performance. Live music accompaniment.

Prerequisite: Theatre 108 or consent of instructor.

Taught: Annually, 2 semester credits. May be taken twice for credit.

### 209 MOVEMENT FOR ACTORS

Davis

Content: Increasing physical movement skills and deepening physical expressivity for a theatrical context. Development of balance, fluidity, strength, flexibility, stamina, coordination. Set movement exercises and improvisation to explore authentic gesture, clarity of intention, rhythmic design, awareness of three-dimensional space. Students keep journals, analyze performances, develop scenes. Live music accompaniment.

Prerequisite: Theatre 113.

Taught: Alternate years, 2 semester credits.

### 213 ACTING II, REALISM

Arnold, Weeks

Content: Rehearsal with more complex texts of realism from such playwrights as Ibsen, Chekhov, Churchill, Stoppard. Integration of voice and body work, deepening a sense of truth in emotional and intellectual expression. Actors work with instructor on individual acting problems, share research in texts and historical periods, learn how to help each other take acting explorations further. Writing: script analysis, historical research, bibliography, observations. Additional projects in movement and voice.

Prerequisite: Theatre 113.

Taught: Annually, 4 semester credits.

### 214 Dance History and Performance Criticism

Davis

Content: Viewing of selected live dance performances in the Portland area. An exploration of the intellectual, historical, and social contexts of these performances. Development of a vocabulary for dance criticism and an understanding of the essential elements of dance choreography and performance. Readings; analysis of videotaped, filmed, and live dance performances; seminar discussion. Prerequisite: None. Fee.

Taught: Alternate years, 2 semester credits.

## 215 COSTUME HISTORY AND DESIGN

Content: Theories and principles of costume design combined with in-depth survey of the international history of clothing from ancient Egyptian to present. Weekly costume assignments based on play analysis. Comprehensive costume history final.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

### 224 SCENE DESIGN

Gerth

Content: Theories and techniques of stage design, historical architectural survey, sketching techniques, perspective drawing, painted elevations, model making. Basic technical drawing skills and stage lighting considerations. Research and design based on play analysis. Weekly assignments designing sets for classics (Greek, Shakespeare, Moliere, Chekhov, contemporary). Paper critiquing scenic elements of an off-campus production.

Prerequisite: Theatre 110, 113, or consent of instructor.

Taught: Alternate years, 4 semester credits.

### 226 SCENE PAINTING

Gerth

Content: Theoretical approach to scene painting based on play analysis and director's interpretation. Tools and techniques of the craft. Color theory and application developed through daily in-class projects. Paper critiquing the scene painting of an off-campus production.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

### 234 STAGE LIGHTING

Wilk

Content: Understanding the physical properties of light, the technology used to light the stage, and the role of lighting in the design process. Topics to be covered: lamps, lighting instruments, control systems, color, optics, electricity, the physics of light, and the technical and artistic considerations involved in lighting the stage. Readings, writing assignments, midterm exam, and final

Prerequisite: None.

Taught: Alternate years, 2 semester credits.

### 250 THEATRE IN NEW YORK

Staff

Content: Contemporary theatre in New York including traditional and experimental work, American plays, plays from the international repertoire. Attending and discussing productions. Meeting with playwrights, actors, directors, designers, producers to investigate current trends in theatrical writing, production, criticism.

Prerequisite: None.

Taught: Annually, on New York program, 4 semester credits.

#### 251 THEATRE IN LONDON

Staff

Content: Contemporary theatre in London including traditional and experimental work, American plays, plays from the international repertoire. Attending and discussing productions. Meeting with playwrights, actors, directors, designers, producers to investigate current trends in theatrical writing, production, criticism.

Prerequisite: None.

Taught: Alternate years, on London program, 4 semester credits.

#### 252 REHEARSAL AND PERFORMANCE, DANCE

Davis

Performance of original dance pieces developed by student choreographers. Work critiqued at regular intervals throughout semester. Approximately 10 weeks of rehearsals held twice a week and three performances.

Prerequisite: Audition.

Taught: Annually, 1-2 semester credits. May be repeated for credit.

#### 253 REHEARSAL AND PERFORMANCE: ONE-ACTS

Staff

Content: Faculty-supervised rehearsal and performance of selected one-act plays and senior thesis projects, organized in various formats: student writtenstudent directed; professionally written-student directed; professionally written-guest artist directed. Limited scenic support.

Prerequisite: Audition.

Taught: Annually, 1-3 semester credits, credit–no credit.

#### 275 Introduction to Playwriting

Weeks

Content: Introduction to dramatic writing. Examination of dramatic action, dialogue, characterization, and structure; emphasis on writing for the stage. Reading assignments from classical, modern, and contemporary plays as well as from commentaries on the playwright's art, Aristotle to the present. Students

write scenes and exercises throughout the semester, culminating in a final project.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

## 281 THEATRE AND SOCIETY I: CLASSICAL AND MEDIEVAL DRAMA

Arnold, Simek

Content: Series examining significant works of world drama with a focus on Western traditions. Close study of dramatic construction; relationship between stage practice and text and the place of theatre in society. Major performance styles and physical theatres and evolving interpretations of genre. Students participate in scene readings and staging demonstrations. Reading of 12 to 15 plays each semester. Critical emphasis on student responses through discussion. Focus on ancient Greek and Roman drama; medieval drama; traditional drama of China, India, Japan.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

### 282 THEATRE AND SOCIETY II: RENAISSANCE, NEOCLASSICAL, AND ROMANTIC DRAMA

Weeks

Content: Same as Theatre 281. Focus on English and Italian Renaissance, French neoclassicism, English Restoration, romanticism, and melodrama.

Prerequisite: None.

Taught: Alternate years, 4 semester credits.

### 283 THEATRE AND SOCIETY III: MODERN CONTINENTAL DRAMA Arnold, Simek, Weeks

Content: Same as Theatre 281. Focus on modern continental theatre from Büchner to contemporary European playwrights. Examination of realism, expressionism, surrealism, and continental postmodernism. Special attention to the theatre and social contexts of Eastern and Central Europe and Germany. Prerequisite: None.

Taught: Alternate years, 4 semester credits.

### 299 INDEPENDENT STUDY

Staff

Content: Opportunities for well-prepared students to design and pursue a course of independent readings or creative work in a substantive area. Details determined by the student and supervising instructor.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

### 301 DIRECTING

Arnold, Simek, Weeks

Content: Preliminary text analysis, preparation and staging of play texts. Exercises and scene work exploring the director's basic techniques, tools, and procedures.

Prerequisite: Theatre 213, junior standing. Taught: Annually, 4 semester credits.

#### 308 Dance Composition and Improvisation

Davis

Content: Studio work in compositional exploration and the investigation of movement and sound in solo and group improvisation. Organization and

design of dance studies for class presentation and future choreography. *Prerequisite:* Theatre 108 and one other dance course or consent of instructor. Taught: Annually, 4 semester credits.

## 313 ACTING III, STYLE

Arnold, Simek, Weeks

Content: Advanced techniques in acting associated with, and demanded by, the drama of particular periods and genres. Acting "style" explored through the study of a period's theatrical conventions and cultural preferences (in physical movement, bodily display, vocal technique, fashion, and so on). Emphasis on premodern styles, including Shakespeare, commedia dell'arte, Restoration, and neoclassical. Some modern and contemporary nonrealistic styles.

Prerequisite: Theatre 113.

Taught: Annually, 4 semester credits.

### 314 COSTUME DESIGN AND CONSTRUCTION

Gerth

Content: Historical considerations and practical techniques of pattern drafting, cutting techniques, tailoring. Drafting and construction in relationship to script considerations and character requirements.

Prerequisite: Theatre 215 or consent of instructor.

Taught: Alternate years, 4 semester credits.

### 340 THE HISTORY AND THEORY OF MODERN AND POSTMODERN PERFORMANCE

Arnold, Simek, Weeks

Content: An intellectual history of Western theatrical performance in the 20th century through modern and postmodern performance theories formulated by major directors, actors, playwrights, critics, and theorists. Readings from primary sources, biographies and critical works, contemporary theatre theory. Research emphasis on significant productions, major artists, training methodologies, and distinctive models of theatrical work. Provides a historical and theoretical context for contemporary theatrical practices.

Prerequisite: Sophomore standing and two theatre courses: one 4-semestercredit course in dramatic literature/theatre history and one 4-semester-credit course in performance, or consent of instructor.

Taught: Alternate years, 4 semester credits.

#### 350 Dance and Performance

Content: Exploration of dance technique in preparation for performance. Interdisciplinary collaboration with musicians and visual artists in the creation of dance works. Culminates in dance concert.

Prerequisite: Consent of instructor.

Taught: Alternate years, 1-4 semester credits. May be repeated for credit.

### 351 REHEARSAL AND PERFORMANCE I

Staff

Content: Rehearsals five to six nights a week for six to eight weeks. Six scheduled performances followed by a department critique. Intense involvement in the complete process of translating a play script into performance. Journal or research as process requires. Focus on classical drama (pre-18th century).

Prerequisite: Audition for cast. Lewis & Clark supports a policy of color-blind

Taught: One or more of the series 351, 352, 353 offered each semester, 1-4 semester credits depending on size of role and length of rehearsal period. May be taken twice for credit.

### 352 REHEARSAL AND PERFORMANCE II

Same as Theatre 351. Focus on American drama. May be taken twice for credit.

### 353 REHEARSAL AND PERFORMANCE III

Same as Theatre 351. Focus on world drama. May be taken twice for credit.

#### 356 ADVANCED PERFORMANCE

Simek

Content: An exploration of nontraditional modes of theatrical creation and performance for advanced theatre students and students of studio art, music performance, or creative writing. Nontraditional models of collaboration and collective creation, the adaptation of nondramatic texts for performance, and examples of cross-disciplinary work. Students write, adapt, and create original performances throughout the semester. Culminates in a large-scale collaborative project.

Prerequisite: Sophomore standing and two 4-semester-credit courses in theatre, one of which must be in performance; or two 4-semester-credit courses in studio art, music performance, or creative writing and consent of instructor. Taught: Alternate years, 4 semester credits.

### 381 British Theatre and Drama: 19th Century to Present Weeks

Content: A study of the dramatic literature and performance styles of British theatre from the origins of modernism to the present. Wilde, Shaw, and Coward through post-war playwrights such as Wesker, Pinter, Bond, Churchill, Brenton, Hare, Barker, Stoppard, and Wertenbaker. The evolution of theatrical forms and themes in relation to historical and social change.

Prerequisite: Sophomore standing and either Theatre 281, 282, or 283, or sophomore standing and a literature course offered by the departments of English or Foreign Languages and Literatures.

Taught: Alternate years, 4 semester credits.

### 382 American Theatre and Drama: 19th Century to Present Arnold

Content: A study of the American theatre's dramatic literature and performance styles. Origins of modern American theatre from the English theatre tradition, the theatres of immigrant communities, and the popular entertainments of the 19th-century stage. An examination of the development of realism in the first half of the 20th-century and further developments from the 1960s onward, including the expanding range of voices represented and issues of race and gender. The evolution of theatrical forms and themes in relation to historical and social change.

Prerequisite: Sophomore standing and either Theatre 281, 282, or 283, or sophomore standing and a literature course offered by the departments of English or Foreign Languages and Literatures.

Taught: Alternate years, 4 semester credits.

# 385 SPECIAL TOPICS SEMINAR: PLAYS AND PLAYWRIGHTS

Arnold, Simek, Weeks

Content: An intensive study focusing on the work of one playwright or related playwrights or focusing on an aesthetic movement. Emphasis on a core group of plays and surrounding historical and critical materials. Exploration and evaluation through research, critical writing, and workshop performances of both dramatic texts and of class research and criticism.

Prerequisite: Sophomore standing plus two 4-semester-credit courses in theatre, one of which must be in performance, or consent of instructor.

Taught: Alternate years, 4 semester credits. May be taken twice for credit.

### 450 SENIOR SEMINAR

Arnold, Simek, Weeks

Content: Capstone course exploring advanced questions of performance theory. Presentation of a seminar project culminating the student's focus in theatre. Prerequisite: Theatre majors with senior standing. Theatre minors or studentdesigned majors with consent of instructor.

Taught: Annually, 4 semester credits.

### **499 INDEPENDENT STUDY**

Staff

Content: Same as Theatre 299 but requiring more advanced work.

Prerequisite: Consent of instructor.

Taught: Each semester, 1-4 semester credits.

## Academic Services and Resources

#### ACADEMIC ADVISING

Academic advising is conducted by full-time faculty and supported by staff in the student services area. Lewis & Clark faculty are concerned about the academic and intellectual growth of students and are rich resources for academic information and guidance. However, the responsibility for constructing each student's academic program ultimately belongs to the student. Students with special academic needs are encouraged to work with the Student Development Center to identify options that will promote academic success at Lewis & Clark.

The academic advising process is organized by the coordinator of academic advising in the Office of the Registrar.

First-year students are assigned premajor academic advisers. In some cases, the adviser is also the instructor of one of the student's first-semester classes; in other cases, the adviser is assigned based on the student's declared academic interests. These faculty advisers are knowledgeable about general College requirements and procedures and can assist all students in selecting first-year courses and in developing a projected four-year academic program. It is important that first-year students plan their academic program through to graduation. Academic planning will enable students to gain the full benefit of their education and to plan for special experiences such as overseas or offcampus study.

Transfer students are assigned academic advisers in the area of their major (usually the department chair). Transfer students must submit official transcripts from institutions from which they are transferring to the registrar's office at Lewis & Clark. The registrar's office analyzes the transcripts and determines which courses are transferable and whether they meet General Education requirements. Students who wish to include transfer courses in their major course of study must have the approval of the department chair in the major. All transfer students should work closely with the registrar's office and the department chair to plan their academic program completely through to graduation.

All students are responsible for scheduling meetings with their academic advisers to discuss present and future academic issues and goals. Academic adviser clearance is required during each semester's registration process, but students should also meet regularly with their advisers to discuss progress and future academic plans. When students identify an academic major (a requirement for registration during the junior year) they must identify a major adviser. Students should work with their advisers to verify their progress toward graduation. At the beginning of the year when students plan to graduate, they must file a degree application with the registrar's office. This application must be approved by and have the signature of the department chair in the student's major field of study.

All students are welcome to change advisers at any time. This should be a thoughtful decision and must be made with the consent of the new adviser. Students should identify a faculty adviser in whom they have confidence and with whom they can work.

#### STUDENT SUPPORT SERVICES

The coordinator of student support services provides services for the learning disabled and physically challenged as well as advice about general college requirements, time management, and study skills. The coordinator of student support services is responsible for ensuring that arrangements are made for

disabled students in compliance with Section 504 of the Rehabilitation Act of 1973 and the American With Disabilities Act of 1990. Copies of the Student Disability Policy and Grievance Procedure are available from the Office of the Dean of the College, the Student Development Center, and Lewis & Clark's Web site.

#### WRITING CENTER

As part of the College's commitment to excellence in writing, the Writing Center offers one-on-one conferences for undergraduates seeking assistance with papers and other writing projects related to their academic program. The staff regularly work with students at all stages of the writing process, providing strategies for formulating ideas, organizing texts, choosing an appropriate style, and recognizing and fixing mechanical errors. Conference times are scheduled throughout fall and spring semesters.

### MATH SKILLS CENTER

Mathematics is a basic skill necessary for success in the General Education curriculum and in many majors. The College recommends that students have preparation through intermediate algebra and encourages students to do their basic mathematics work early in their college careers. The Math Skills Center provides classroom and individual instruction in the Review of Algebra course (Mathematics 055). The center also operates as an informal resource by providing drop-in hours with peer tutors for students who need help with math-related skills in any course.

### COMPUTING AND MEDIA RESOURCES

Technology is integrated into the curriculum in many departments, both as a means of enhancing the instructional process and as a way of preparing students to meet the challenge presented by the pervasive use of technology in the workplace. Computing facilities on campus include unique resources dedicated to the use of certain departments as well as institution-wide resources available to the entire community.

The College maintains academic and administrative minicomputers and a campuswide network that connects all institutionally available computing resources including all residence halls. Microcomputers are available 24 hours a day in the library, at no cost to students. The College also provides access to the Internet from all computer labs and residence halls.

Lewis & Clark provides faculty and students with facilities and expertise in multimedia, video editing, photographic and slide production, and audio and visual duplication services to support instructional needs, campus life activities, special events, and institutional advancement activities.

Through special arrangements with vendors, Lewis & Clark makes computer hardware and software available to full-time students at substantial discounts.

In addition, Information Technology staff assist students in learning to use hardware, software, and peripheral computing equipment; offer training resources such as tutorials or classes; and provide user accounts for access to College network resources such as e-mail and other online services.

The Aubrey R. Watzek Library is suitably located at the heart of the campus. The library houses a collection of 260,000 print volumes and over 380,000 microform units and subscribes to 1,820 periodicals. The library shares an online catalog with the Paul L. Boley Law Library at the College's law school and offers a full range of electronic databases, including many full-text resources.

Internet connections are available at over 100 study carrels throughout the building. The library also offers specialized reference assistance in the use of both print and electronic sources.

Lewis & Clark College is a member of several library consortia through which students and faculty can borrow materials directly from member institutions. One of these, Orbis, includes 20 academic libraries throughout the Northwest that share a unified library catalog and delivery system. Students and faculty can perform a single search to find and borrow materials through a database including more than 10 million books, sound recordings, films, videos, and more.

## Student Services, Resources, and Programs

The primary focus of Lewis & Clark College is its academic mission. To support and enhance students' academic experience, College staff members provide a variety of services, resources, and programs that encourage participation in both curricular and cocurricular activities. These services are highlighted here. More detailed information on each is available in the student handbook, The Pathfinder, which is published annually and is also available on the Web at www.lclark.edu/~stlife.

#### **CAMPUS SAFETY**

The primary goal of the Office of Campus Safety is the protection of life and property on the Lewis & Clark campus. Other goals are to maintain the peace, to provide services to the campus community, and to enforce various administrative regulations.

Campus Safety coverage is provided 24 hours a day, 365 days a year. The Office of Campus Safety can be reached by dialing ext. 7777 for any service call or emergency. Routine business can be taken care of by dialing ext. 7855. Campus Safety officers can be quickly dispatched through a two-way radio system to any part of the Lewis & Clark campus.

The staff includes seven full-time uniformed campus safety officers, three full-time dispatchers, and the director of campus safety.

### **DEAN OF STUDENTS**

The dean of students provides leadership and administrative management for student life offices and operations, including the Student Development Center, International Student Services, Ethnic Student Services, Residence Life, the Center for Service and Work, Career Development, Student Activities, the Counseling Center, the Health Center, and Templeton Student Center. The dean advises several student groups and oversees the student conduct system. The office of the Dean of Students is located in Templeton Student Center, upper level.

### RESIDENCE LIFE

Lewis & Clark is committed to the residential education experience, which includes the exploration of ideas, values, beliefs, and backgrounds; the development of lifelong friendships; and the pursuit of collaboration, both formal and informal, with students, faculty, and staff. The residence hall community is dedicated to academics, campus and community involvement, and enjoyment of the college experience.

Consistent with Lewis & Clark's mission as a residential liberal arts college, students are required to live on campus for their first two years (four semesters) unless they are living with parent(s) in the Portland area, are married, are 21 years of age or older, or are entering transfer students with 28 semester hours of transferable college credit. The residential program's

overarching goal is to create and maintain residential environments that are educationally purposeful, open, just, disciplined, caring, and celebrative.

Four residence hall clusters and a fifth apartment-style upperclass complex are each managed by a full-time professional resident director who coordinates all aspects of the community, including training and supervising undergraduate resident assistants (RAs), coordinating programming efforts, participating in the campus judicial process; and providing counseling, mediation, and crisis management as necessary. The RAs assist in hall management and help students make the transition to group living using the extensive training they receive in peer counseling, ethical leadership, activities planning, and community building.

The Office of Residence Life administers housing and food service contracts; coordinates room assignments; manages staff selection, training, and supervision; provides leadership development opportunities; and offers curricular support programs, including New Student Orientation, Parents' Preview, and Family Weekend.

#### STUDENT ACTIVITIES

Student activities complement academic pursuits to create a balanced and rewarding college experience. The Office of Student Activities offers a variety of cocurricular services and opportunities to enhance student development and leadership. Staff members help students develop personal and practical life skills by matching their interests to appropriate student clubs and activities.

The office advises and facilitates more than 80 student groups, student government, and campuswide events. Staff members assist student leaders with developing strategies for programming and budget planning, publicity and promotion, running effective meetings, planning retreats and workshops, starting new groups, and developing other leadership skills.

### ETHNIC STUDENT SERVICES

Ethnic Student Services focuses on recruiting, supporting, and graduating students of color at Lewis & Clark. Services include providing information, advice, and counsel to students, faculty, staff, and administrators regarding students of color at the College. The office is also responsible for providing collegewide education in and exposure to different American ethnic minorities and cultures.

#### INTERNATIONAL STUDENT SERVICES

International Student Services provides specialized admission services and orientation programs for international students. The staff offer academic and personal counseling and assistance with housing, on-campus employment, and the processing of immigration documents. The office also assists with financial aid arrangements and provides opportunities for community involvement such as participation in a Friendship Family program, a speakers' bureau, and the annual all-campus International Fair.

#### HEALTH CENTER

Comprehensive health services for students include consultation and treatment, routine physicals, gynecological exams, medications and contraception, travel consultations, immunizations, allergy injections (with physician order), and first aid. Charges are made for immunizations, medications, laboratory tests, and equipment rental.

Lewis & Clark student health insurance coverage is mandatory for all undergraduates, unless waived through the Business Office. Students with families are eligible for coverage under a family rate schedule.

Medical records are strictly confidential and are not released without the student's written consent.

#### COUNSELING CENTER

The Counseling Center offers professional psychological help for students experiencing personal and academic concerns. The center is open to all registered students, including law and graduate students. A licensed psychologist and two counselors serve on the staff. A psychiatrist and psychiatric nurse practitioner are available for medical and medication assessments on a limited basis. Appointments with the counseling staff are free; however, appointments with the medical staff require a fee, which is partially covered by the College's student health insurance plan and most private health insurance plans. All appointments and information shared at the center are held in strict confidence.

#### CHAPLAINCY

The dean of the chapel directs and supports programs for students focusing on spiritual and moral issues. Students help plan and lead many of these activities, including regular chapel services, special forums and lectures, small-group studies, spiritual renewal retreats, and volunteer community service projects. The dean of the chapel also is available for religious, crisis, and grief support and counseling.

Programs offered through the chapel office recognize the religious diversity of the Lewis & Clark community and seek to promote moral and spiritual dialogue and growth in a context of mutual support. Although the chaplaincy has its roots in the Presbyterian heritage of the College, chapel programs are ecumenical and the dean of the chapel supports all religious life programs that take place on campus. An Interfaith Council encourages dialogue among faith groups and provides religious life programming and policy recommendations.

### **ALUMNI ASSOCIATION**

The Lewis & Clark College Alumni Association works to unite the influence, loyalty, and resources of those the College has educated for the support and improvement of the College.

The Office of Alumni Relations provides staff leadership to engage alumni in the life of the College through active participation with the Board of Alumni, alumni chapters, career networks, admissions efforts, fund-raising, and communication media.

# Cocurricular Opportunities

Cocurricular activities are a source of knowledge and pleasure, allowing students to learn in ways not possible in the classroom while contributing to the benefit of the wider community. Students are encouraged to take advantage of these chances to gain insights into themselves and others, to build lasting friendships, to enjoy college life, and to acquire valuable practical experience. A sampling of such opportunities follows.

### **COLLEGE OUTDOORS**

College Outdoors gives the College community access to the spectacular outdoor environment of the Pacific Northwest through such activities as crosscountry skiing, backpacking, whitewater rafting, sea kayaking, and hiking. On-campus events include slide programs, films, and seminars on outdoor topics. College Outdoors is one of the largest outdoor programs in the country among schools of comparable size, offering 50 or more trips a year. The program provides transportation, group and most individual equipment, and organization, and also arranges food packouts for participants who are on college meal plans. Student staff and volunteers help organize special events and trips, gaining valuable practical experience in leadership roles.

#### CENTER FOR SERVICE AND WORK

The Center for Service and Work (CSAW) provides students with opportunities and resources for cultivating habits of work, service, and leadership in preparation for productive careers and rewarding lives. Each year, hundreds of Lewis & Clark students extend their learning beyond the classroom by participating in the many programs offered through CSAW, learning more about themselves and the world around them.

Students can become involved in numerous ways.

Community service participation provides students with hands-on experience in the nonprofit sector. Volunteering is an excellent example of students' willingness to share their strengths with the community.

Career planning and development prepares students for life beyond Lewis & Clark. Students can take advantage of services and resources ranging from preparing for a job search to creating a resume and practicing interviewing techniques. Connecting with alumni has also been a valuable way for students to learn about career fields and to start making plans for the future.

Part-time jobs, both on and off campus, enable students to learn about the world outside of academia, gain experience, and build skills for their resumes. **Internships and summer jobs** allow students to prove themselves in a professional environment while developing valuable skills for use in their college and professional careers.

**Leadership programs** provide students with skills and knowledge to develop a better sense of self, an improved understanding of their relationship to others, and a more informed view of their relationship to local and global communities.

A complete listing of CSAW's services is available on the Web at www. lclark.edu/~csaw.

#### RECREATIONAL SPORTS AND INTRAMURALS

Lewis & Clark's full complement of athletics facilities are open for recreational use by students, faculty, staff, and alumni. Facilities include indoor and outdoor tennis courts, a gymnasium, indoor and outdoor swimming pools, a state-ofthe-art track, a well-equipped weight room, and an all-weather synthetic playing field. For students who desire a friendly atmosphere of competition, organized intramural leagues include volleyball, basketball, inner-tube water polo, Ultimate Frisbee, and softball. Evening and weekend intramural tournaments provide opportunities in tennis, badminton, basketball, swimming, table tennis, Ultimate Frisbee, and volleyball.

### **CLUB SPORTS**

The College offers a variety of student-initiated club sports, including sailing, soccer, martial arts, rugby, and lacrosse. Chartered club sports are eligible for partial funding through the Associated Students of Lewis & Clark. The clubs are student-directed and the level of competition varies from sport to sport.

### VARSITY ATHLETICS

Over 325 undergraduates participate in one of the 19 varsity sports sponsored by Lewis & Clark each year. The College fields nine men's and ten women's teams in the National Collegiate Athletics Association (NCAA) Division III. As a member of the Northwest Conference (NWC), the College participates in one of the most competitive conferences in the country. The Pioneers have garnered many team and individual championships over their long history, giving them a strong tradition in athletics.

Although membership in the NWC and NCAA III excludes the granting

of scholarships based on athletic talent, Lewis & Clark does have an attractive financial aid program including academic and merit scholarships, for which student-athletes, like all students, may apply.

### STUDENT GOVERNMENT (ASLC STUDENT COUNCIL)

All students matriculated in the undergraduate college are members of the Associated Students of Lewis & Clark. Each year, elections are held to choose the ASLC officers. The officers, who form the ASLC Student Council, are the president, three vice presidents, and three student representatives. The peer review board chair, a nonvoting member of Student Council, is also elected annually and chairs the Peer Review Board component of the student judiciary system.

ASLC financially supports numerous chartered organizations, including the Student Media Board; Students Organized for Activities (SOFA); the General Allocations Board (GAB); and the Student Academic Affairs Board (SAAB), which distributes grants for research, conferences, and visiting scholars. Students may also wish to gain leadership experience through participation on other governance boards and campus committees. Students of any age, experience, or interest may become involved in ASLC activities.

Students living in residence halls are represented by separate hall councils and a community liaison to ASLC. These individuals plan and fund residential programs and activities and work with resident directors and student resident assistants to enhance the quality of on-campus living.

#### STUDENT MEDIA

KLC Radio, one of the largest campus activities, has a station staff of 40 to 60 students each semester. Staff members participate in all aspects of broadcasting, station management, and operations, including programming, production, news, and promotions. The station broadcasts to the campus 24 hours a day, seven days a week, and can be accessed on the Web at www.lclark.edu/~klc. KLC is a cocurricular activity sponsored by the Department of Communication. Students should consult the department regarding prerequisites for earning academic credit while working at the radio station.

Literary Review, which includes art, photography, poetry, and fiction, allows students to edit, produce, and publish an annual collection of creative compositions and exhibits from the College community.

Meridian, an annual undergraduate publication, is dedicated to providing a forum for student views on international and cross-cultural issues. The journal encourages all students to submit essays, research papers, theses, overseas journal excerpts, photographs, and various other forms of work related to current issues and events.

Pause is an annual journal focused on the dramatic arts.

Picture This Productions, also known as LCTV, is a student-directed and -managed organization devoted to the production of film and video. LCTV produces a weekly video magazine. Any student may submit work to PTP for possible inclusion in LCTV broadcasts. PTP also sponsors film festivals and one or two filmmaking efforts during the academic year.

Pioneer Log, Lewis & Clark's weekly student newspaper, reports campus and community activities and news of interest to students, faculty, and staff. The paper has opportunities on its staff for students interested in writing, photography, graphic design, art, editing, business, advertising, and promotion. Students may begin working for the Pio Log at any time during their years at Lewis & Clark. Students should consult the Department of Communication regarding prerequisites for earning academic credit while working for the

Pio Log.

**Polyglot**, a foreign language journal, takes submissions from students who speak other languages and publishes them in a multilingual journal. It is a yearly publication with a distribution of about 300 copies.

Synergia is a yearly magazine that focuses on gender issues. It is published in the spring, following the annual Gender Studies Symposium. All students are encouraged to submit articles to the editorial board, which evaluates and approves them for publication.

Yiem Kimtah, the Lewis & Clark yearbook, is a 100-page memory book documenting the people and events of the College. Students work in photography, layout, writing, design, and publication management.

#### Music

Music is an integral feature of life and a serious field of academic study at Lewis & Clark. A faculty of renowned scholars, composers, and performers work in close contact with students in their chosen field. Students majoring in musicology, composition, ethnomusicology, music education, and performance present more than 100 concerts, symposia, and recitals each year. Department events include student recitals, solo and ensemble performances by faculty members, programs by visiting artists and scholars, and concerts by all of the performing ensembles at Lewis & Clark. These ensembles include the Wind Symphony, Jazz Ensemble, Orchestra, Musical Theatre, Javanese Gamelan, West African Rhythms, African Marimba, and Cappella Nova. Participation is open to all students, not only to music majors.

The Department of Music also sponsors a weekly music hour, an informal potpourri of performances by student soloists and small ensembles. Music hour allows students to present works-in-progress in a more relaxed setting than a full recital.

Private lessons are available for all orchestral and band instruments, keyboard (piano, organ, and harpsichord), voice, guitar, jazz guitar, electric bass, and drum set. Lessons are also offered for non-Western instruments such as koto, shamisen, sitar, flamenco guitar, and individual instruments from the gamelan. Students may begin instrumental or vocal lessons without previous experience. The Department of Music maintains a large inventory of instruments, which are available for a modest fee to students enrolled in lessons. Students of outstanding academic and musical ability are eligible for music scholarships. Consult the Department of Music for details.

The forensics squad at Lewis & Clark is open to any full-time student in good standing. Lewis & Clark has been nationally rated in debate competitions and participates regularly in both policy and parliamentary debate nationals. Several students have placed at the National Individual Events Tournament. The program also supports an active on-campus and community public forum.

Forensics is a cocurricular activity sponsored by the Department of Communication. Students should consult the department regarding prerequisites for earning academic credit while participating in the program.

### **THEATRE**

Fir Acres Theatre provides opportunities during the year to students who want to act, direct, write plays, design lights, work on technical crews, or enjoy fine theatre on campus. Each semester the Department of Theatre presents facultydirected productions on the Main Stage of Fir Acres Theatre as well as studentdirected and student-written plays in the Black Box. Dance concerts involving student and faculty choreography are presented each year.

The productions of the theatre department are a vital part of campus life

and the selection of plays represents both the most exciting new work being written and the best of the classics. Participation in a production is open to any full-time student and the department adheres to a policy of color-blind casting. Students may receive credit for production work by auditioning or by enrolling in theatre lab or production seminar courses.

## Admission

#### DEAN OF ADMISSIONS: MICHAEL SEXTON

Lewis & Clark College selects students with strong academic records and promise who seek a challenging liberal arts curriculum characterized by breadth and depth. Successful applicants are individuals who, through their varied talents and interests, will contribute in distinctive ways to the wider communities of which they are a part. As a member of the National Association for College Admission Counseling, Lewis & Clark subscribes to the NACAC Statement of Principles of Good Practices. Students are admitted without consideration of financial need.

### RECOMMENDED ACADEMIC PREPARATION

Admission to the College is selective. The most important factors in determining admission to Lewis & Clark are the quality of a student's academic program and the grades earned in academic preparatory courses. The Admissions Committee also considers writing ability, quantitative skills, standardized testing, leadership, community service and work experience, personal interests, extracurricular activities, and expressed interest in the College.

The College expects first-year students to have completed a high school curriculum including a minimum of:

English
Mathematics, including second-year algebra 3–4 years
History/social studies
Foreign language (same language preferred) 2–3 years
Laboratory science
The second of th

Students who have performed well in Advanced Placement, International Baccalaureate, or honors courses are given preference in the admission process. The Admissions Committee may consider applicants whose academic preparation is different from that described above if other aspects of their record indicate potential for success in Lewis & Clark's academic program.

Home-schooled students are encouraged to apply via Lewis & Clark's Portfolio Path to Admission (described below) and to contact the admissions office to discuss the best ways to present their academic preparation to the committee. Lewis & Clark recommends that home-schooled applicants take the ACT or complete a GED to meet regulations for federal financial aid. For more information on our evaluation of home-schooled applicants, visit our Web site at www.lclark.edu.

### SCHOLASTIC ASSESSMENT TEST OR AMERICAN COLLEGE TEST SCORES

With the exception of international students, students applying through Lewis & Clark's Portfolio Path to Admission, and transfer students with at least 61 transferable semester credits, the College requires all applicants to submit SAT I or ACT scores. First-year applicants should take one of these tests before February 1 of their senior year and arrange to have the scores sent to Lewis & Clark, either by the testing agency or on an official high school transcript.

### PORTFOLIO PATH TO ADMISSION

Lewis & Clark has offered the alternative Portfolio Path to Admission since 1991. Students electing this application plan must submit three academic teacher recommendations and an academic portfolio and may choose not to submit standardized test scores. All other required credentials remain the same. In assembling the portfolio, a student is asked to include at least one graded writing sample among a minimum of five submissions that will demonstrate to the Admissions Committee his or her intellectual curiosity, depth and breadth of curriculum, and preparation for college work.

### ALTERNATIVE APPLICATION OPTIONS

Students may use the application form provided in Lewis & Clark's viewbook or any of several equally acceptable alternatives. They may also apply online through the College's Web site (www.lclark.edu), in which case the application fee is waived. Forms that can be downloaded and printed are also available on the College's Web site. The Common Application form is readily available from high school counseling offices and on the Internet (www.commonapp.org). Other Internet or computerized forms are also accepted.

#### TRANSFER ADMISSION

Transfer students—about 80 of whom enroll each year—bring a welcome maturity and diversity to Lewis & Clark and are an important part of the entering student group. Students are considered transfer applicants if they have completed 12 or more semester credits of college-level work after graduating from high school or earning the GED. They are admitted on the same selective basis as first-year students and are eligible for financial aid and campus housing. Transfer applicants are expected to have achieved their preparation for Lewis & Clark through high school or early college coursework, and to have further demonstrated their ability to succeed in college-level studies by appropriate course selection and grades received. The College encourages transfer applicants to visit the campus and schedule an interview with one of the transfer coordinators.

### TRANSFER APPLICATION

A complete transfer application must contain:

- 1) Application form with essay.
- 2) Nonrefundable \$50 application fee (unless applying online via Lewis & Clark's Web site).
- 3) Letter explaining reasons for wanting to transfer to Lewis & Clark.
- 4) Official secondary school transcript including verification of graduation or GED certification. This is required even if the student has been awarded an AA degree and/or has been out of high school for several years.
- 5) Official transcripts from each college attended.
- **6)** SAT I or ACT scores. Unless they will have completed two years of transferable college work (92 quarter credits or 61 semester credits) before enrolling at Lewis & Clark, transfer students are required to provide test scores on their high school transcript or from the appropriate testing agency.
- 7) Recommendation from a college professor.
- 8) Dean of Students form from most recent institution.
- 9) Current and Projected Course List form.

#### TRANSFER CREDIT POLICIES

Transfer students generally receive full credit for satisfactory work completed at other accredited colleges and universities in courses judged to be equivalent to those offered at Lewis & Clark. Preliminary transcript evaluations accompany letters of acceptance. Coursework is evaluated for transferabilty only on a course-by-course basis. No "block" credit will be granted for associates or

transfer degrees. Transfer credit is not granted for coursework with a grade below C (2.000), College-Level Examination Program (CLEP), life experience, credit by examination, or distance-learning courses, including online, correspondence, and televised courses. Credit may not be granted for college coursework completed over 20 years ago. Credit is also not granted for college courses used in any way for high school graduation. If a student has completed college-level coursework at an accredited college or university, but is unable to present a high school diploma, a General Education Diploma (GED), or other high school equivalency diploma, courses will be evaluated for transfer credit on a course-by-course basis.

In order to be awarded a Lewis & Clark degree, students must fulfill the College's academic residency requirement by completing at least 60 semester credits at Lewis & Clark out of the 128 semester credits required for the degree. Thus, a maximum of 68 semester credits may be transferred from other institutions. A maximum of 4 semester credits of physical education/activity may be transferred. One quarter credit equals .67 semester credits.

Transfer students must complete graduation requirements outlined in this catalog. After the College receives a reservation deposit and before the transfer student enrolls, the Office of the Registrar evaluates transcripts of all previous college work to determine credit that is transferable toward Lewis & Clark's General Education requirements. To determine whether courses completed elsewhere meet requirements for an academic major, students should consult the department or program chair of that major.

### CAMPUS HOUSING REQUIREMENT

Because of the residential nature of Lewis & Clark, all new students are required to live on campus their first two years (four semesters). Students are exempt from this policy if they are living with their parent(s) in the Portland area, are married, have a dependent, or are 21 years of age or older. Entering transfer students with at least 28 semester credits of transferable college work are also exempt from the campus housing requirement.

### FALL SEMESTER ADMISSION CALENDAR

### First-Year Applicants

September 1: Application materials available on request.

December 1: Early Action (nonbinding) application deadline.

January 15: Early Action notification.

February 1: Regular Decision application deadline.

March 15: Merit-based scholarship notification.

April 1: Regular Decision notification.

May 1: Early Action and Regular Decision deposit deadline (\$300 campus resident, \$200 commuter).

### Transfer Applicants

September 1: Application materials available on request.

December 1: Admission decision and merit-based scholarship notification begins on a rolling basis, within three weeks of file completion.

May 1: Deposit<sup>1</sup> deadline (\$300 campus resident, \$200 commuter).

### MIDYEAR ADMISSION

First-year and transfer students may also be considered for January admission. Evaluation is based on the criteria stated above and applicants are encouraged to apply as early in the fall as possible, but no later than November 15. Notification is made after August 1 on a rolling basis, until December 7.

#### **DEFERRED ENROLLMENT**

Admitted students may choose to defer their enrollment in Lewis & Clark for up to one year. A nonrefundable deposit is required in hold the student's place for a future semester. During the deferral period, a student may not attend another institution on a full-time, degree-seeking basis. Those interested in deferred enrollment may contact the Office of Admissions for more information.

#### ADVANCED STANDING

See index for Advanced Standing elsewhere in this catalog.

#### FURTHER INFORMATION

Students may obtain application materials<sup>2</sup> and information by visiting the College's Web site at www.lclark.edu or by e-mailing admissions@lclark.edu. They may also call 800-444-4111 or 503-768-7040 or write to Office of Admissions, Lewis & Clark College, 0615 S.W. Palatine Hill Road, Portland, Oregon 97219-7899. The Admissions fax number is 503-768-7055. Potential transfer students can contact transfer counselors directly through transfer@ lclark.edu.

#### INTERNATIONAL STUDENT ADMISSION

As part of its commitment to international education, Lewis & Clark seeks to bring to the campus academically qualified students from diverse areas of the world. International student applicants are expected to be graduates of academically oriented secondary schools and meet entrance standards equivalent to those of U.S. applicants. The International Student Admissions Committee follows, as a minimum standard, recommendations for "U.S. institutions with selective admissions requirements" published by NAFSA: Association of International Educators, the National Association for College Admission Counseling, and the American Association of Collegiate Registrars and Admissions Offices.

For complete information about international student admission, contact International Student Services, Lewis & Clark College, 0615 S.W. Palatine Hill Road, Portland, Oregon 97219-7899. Phone: 503-768-7305. Fax: 503-768-7301. E-mail: iso@lclark.edu. Web: www.lclark.edu/dept/iso.

#### VISITING STUDENT PROGRAM

Each year Lewis & Clark College welcomes a few guest students who are in good standing at other accredited U.S. colleges or universities. Students apply to attend Lewis & Clark for a semester or year while they are sophomores, juniors, or seniors.

Course registration for visiting students is on a space-available basis. No Lewis & Clark College financial aid is available. Campus housing is a possibility if there are room vacancies; students should work directly with the residence life office if they choose to pursue this option.

To apply, the student must submit a letter stating why he or she wishes to enroll and his or her goals while here, along with the Lewis & Clark visiting student application form, official transcripts of his or her college/university work to date, two faculty recommendations, and a recommendation from the dean of students at his or her home institution. Lewis & Clark's Office of Admissions must receive all application materials by August 1 for fall admission and by December 1 for spring admission. Students who wish to stay more than one year must reapply to the College.

For further information contact the Office of Admissions at admissions@ lclark.edu.

# Costs

Lewis & Clark College, as a private institution, receives only modest support from federal and state funds. Revenues from tuition and fees cover approximately two-thirds of the cost of services provided by the College. Income from endowment and gifts from trustees, alumni, and other friends of the College meet the balance of these costs.

The College assesses all tuition charges, fees, and residence costs on the payment schedule that follows. However, for students and parents wishing to pay educational expenses on a monthly basis, a 10-month payment program is available from Academic Management Services, One AMS Place, P.O. Box 100, Swansea, Massachusetts 02777.

MasterCard and Visa credit cards are accepted for all charges. If payment is being made by someone other than the card holder, written authorization is required before payment can be processed.

# SUMMARY OF CHARGES, 2003-04<sup>3</sup>

Charges for a two-semester academic year for the typical full-time resident student are as follows.4

Application for admission (nonrefundable): \$50

Tuition and fees: \$24,470<sup>5</sup> ASLC fee (mandatory): \$216<sup>6</sup> Health insurance: \$780

Room and board, 14-meal plan: \$6,890<sup>8</sup> Room and board, 19-meal plan: \$7,140<sup>8</sup>

# SPECIAL COURSE FEES

Certain courses carry additional lab, studio, or other special fees. Consult the annual schedule of classes booklet and the appropriate academic department for details. Information about costs associated with overseas and off-campus study may be obtained from the Office of Overseas and Off-Campus Programs.

## ADVANCE DEPOSITS

A tuition deposit of \$200 is required from all students who intend to enroll at Lewis & Clark College. The deadline for receipt of this deposit is May 1. Of the deposit, \$100 will be credited to the first semester's tuition and is nonrefundable. The other \$100 will remain as a non-interest-bearing registration deposit until graduation or official withdrawal from Lewis & Clark College.

Students accepted for overseas or off-campus study must pay a nonrefundable deposit of \$300 within 15 days of official notification of acceptance to reserve a space in the program. The deposit is applied to tuition and fees for the program.

# SPECIAL RATE FOR ADDITIONAL DEPENDENTS

- 3 The College reserves the right to change tuition and fees.
- 4 Part-time students are charged tuition and fees (including ASLC fees) at the rate of \$1,235 per semester credit.
- 5 Fees include a general service fee, campus activity fee, and facilities fee.
- 6 The ASLC (Associated Students of Lewis & Clark) fee covers membership in student government; subscriptions to the College newspaper, the international-cultural journal, and the literary magazine; admission to intercollegiate athletic events; admission to social and cultural events; and allocations to various student organizations.
- 7 Undergraduate students are required to carry the College's health insurance coverage unless they provide a signed waiver showing coverage is provided through another policy. The waiver remains in effect for all consecutive semesters.
- 8 Flexible meal plans are also available.

Lewis & Clark College allows a 10-percent reduction in tuition charges for a second dependent and a 15-percent reduction for additional dependents attending the College at the same time. To qualify for this tuition reduction, the student and additional dependents must be enrolled as full-time students and not be receiving need-based financial aid.

# SCHEDILLE OF DAVMENTS

SCHEDULE OF FAYMENTS		
Students living on campus:	14 meals	
May 1 (new students)	\$300 <sup>10</sup>	\$30010
August 16	\$15,588 <sup>11</sup>	\$15,713 <sup>11</sup>
December 16	\$15,788 <sup>11</sup>	\$15,913 <sup>11</sup>
Students living at home or off campus:		
May 1 (new students)		\$20010
August 16		\$12,343 <sup>11</sup>
December 16		\$12 343 <sup>11</sup>

### Withdrawal

The College plans its operations on the basis of projected income for the full academic year. A general assumption is that students will remain enrolled until the end of the semester unless unforeseen circumstances necessitate their withdrawal.

Lewis & Clark College's refund policy allows for a partial refund of the semester charges should a student find it necessary to withdraw during a semester. The date of notification appearing on the completed withdrawal form is the date used for assessing charges and determining the amount of any semester charge refund. Refunds for tuition will be prorated on a per-day basis based on the academic calendar up to the 60-percent point in the semester. There are no refunds for tuition after that point in time. Students are responsible for applicable room and board charges through the date they check out of campus housing. Health insurance charges will be refunded to students who withdraw prior to the 15th day of the semester. Course fees will not be refunded to withdrawing students. In the case of a student's death during a term, a full refund will be granted to the student's estate. Students who have received financial aid and withdraw will receive their refund (if any) after the required portion of their financial aid is returned to the aiding programs. Financial aid is earned in a prorated manner on a per-day basis based on the academic calendar up to the 60-percent point in the semester. After that point, students retain 100 percent of the aid applied to their student account.

# Student Financial Services

# **DIRECTOR: GLENDI GADDIS**

Lewis & Clark recognizes the challenges students and their families face in financing the cost of attending college. While the primary responsibility for financing education lies with each student and his or her family, the College is committed to working in partnership with students and their families in making a Lewis & Clark education an attainable goal. Financial assistance in the form of gift aid (grants and scholarships) and self-help aid (student

<sup>9</sup> Payments include tuition and fees, room, and board (when applicable). They do not include

<sup>10</sup> See Advance Deposits, above, for application of deposits.

<sup>11</sup> August and December payments are reduced by the amount of any previous deposits.

employment and loans) is offered through the Office of Student Financial Services. While the majority of assistance is awarded primarily on the basis of demonstrated financial need, the College also offers select merit scholarships to students without consideration of financial need.

Approximately 70 percent of the College's undergraduate students receive some form of financial assistance, with individual aid packages ranging from \$500 to \$33,350 a year. Over \$23 million in financial aid from College, federal, and state resources is distributed annually.

The financial aid programs described in this catalog are available to Lewis & Clark undergraduates. Financial aid programs for graduate and law students are described in the appropriate catalogs.

### APPLYING FOR FINANCIAL AID

To receive financial assistance from the College, students must be admitted as degree-seeking students to Lewis & Clark; must be U.S. citizens or eligible noncitizens; must not be in default on educational loans nor owe repayment of federal grant funds; and must be making satisfactory academic progress toward graduation (as defined in this catalog).

Students are eligible to receive financial aid for up to four years (eight semesters) of full-time undergraduate study. Eligibility for transfer students is based on the number of credits accepted by Lewis & Clark College. Students who are applying for financial aid are expected to be enrolled full time in order to receive assistance, unless they have otherwise notified the Office of Student Financial Services. Students enrolled less than full time are not eligible for assistance from College resources and will be subject to reductions in federal assistance compared to full-time students. Full-time enrollment as an undergraduate student is defined as registering for 12 credits or more.

All students who wish to be considered for federal, state, and need-based College funding must complete the Free Application for Federal Student Aid (FAFSA). In addition, continuing students must complete the College Aid Application (CAP) each year to request renewals for both merit and needbased College assistance. First-year and transfer students are notified of financial aid only after being admitted to the College.

Financial aid is offered annually and students must reapply beginning January 1 of each year. Applications for aid received after the March 1 priority filing date are awarded subject to the availability of funds. Students can expect their financial aid to be renewed each year, contingent upon available funding, provided they have submitted all necessary information prior to the March 1 priority filing date, demonstrated the same level of financial need, and made standard academic progress towards graduation. If a student's demonstrated need changes, the aid package may be adjusted accordingly.

Financial need is defined as the difference between the cost of attending college and the amount students and their families are expected to contribute toward meeting that cost. The expected family contribution is determined by applying federal methodology—that is, the federally approved need analysis formula—to the information submitted on the FAFSA. Factors such as family size, number of students in college, income, and assets are considered in assessing the parents' ability to contribute to the educational costs of the student. Students are also expected to contribute toward their college education from earnings and assets. Students and families must notify the Office of Student Financial Services of any changes to information submitted on the FAFSA, as such changes may require a revision of the student's eligibility for assistance. All financial information remains confidential.

Scholarships and grants awarded from resources controlled by the College

may not exceed the cost of full tuition and required fees. The total amount of assistance from all sources (College, federal, state, and external resources) may not exceed the established cost of attendance. Need-based federal funding must be awarded within the confines of demonstrated financial need, taking into account all other assistance offered to the student.

# SATISFACTORY ACADEMIC PROGRESS REQUIREMENTS

Students are required to be in good academic standing as defined by the College and maintain satisfactory academic progress in order to receive financial aid. In compliance with federal regulations, Lewis & Clark's academic progress standard contains both quantitative and qualitative measures of performance. The standard is cumulative and includes all periods of a student's enrollment, even those in which the student did not receive financial

The College's definition of class standing provides the quantitative measure. Full-time students<sup>12</sup> must successfully complete:

- 1) By the end of the first year: 29 semester credits
- 2) By the end of the second year: 61 semester credits
- **3)** By the end of the third year: 93 semester credits
- 4) By the end of the fourth year, as required for graduation: 128 semester credits.

Withdrawal (W), a course grade of Incomplete (I), or a No Credit designation is not considered satisfactory completion of a course. An incomplete (I) may become acceptable only if the course requirements are completed within the time prescribed by the College.

The qualitative measure that a student must meet is a cumulative 2.000 grade point average.

Academic standing is determined by the Committee on Admissions, Awards, and Academic Standing at the completion of each semester. Students who are placed on probation by the committee are not in good academic standing and are not eligible to receive financial assistance. Students placed on probation are given the opportunity to appeal their loss of aid eligibility to the Standards of Progress Committee and may be granted a probationary term of eligibility. An appeal must provide, in writing, an explanation for the failure to make satisfactory academic progress and must include as supporting documentation an approved academic plan to correct any deficiency that led to being placed on probation.

Satisfactory academic progress as indicated by credits earned is monitored annually by the Office of Student Financial Services. Each student's cumulative GPA is reviewed at the end of each semester. Students who fail to meet the academic progress standard for the first time will be sent a warning letter alerting them of the need to correct the deficiency. Students who fail to meet the standard for a second time are subject to loss of eligibility for financial aid. Such students are given the opportunity to appeal to the Standards of Progress Committee and may be granted a probationary term of eligibility. An appeal must provide, in writing, an explanation for the failure to make satisfactory academic progress and must include as supporting documentation an approved academic plan to correct any deficiency that led to loss of eligibility. A student who is granted a probationary term and again fails to meet the academic progress standard is denied further assistance from Lewis & Clark until he or she meets the standard.

Lewis & Clark's undergraduate programs are structured to be completed in

<sup>12</sup> The quantitative measure for less than full-time attendance is calculated as a percentage of the full-time standard.

four years. Therefore, students are allowed eight semesters (or until the degree requirements are met, whichever is earlier) of eligibility for financial assistance. Written appeals to this policy, which are considered by the Standards of Progress Committee only when significant extenuating circumstances require a student to attend additional semesters, must be accompanied by an approved academic plan.

### WITHDRAWAL POLICY

Students who have received financial aid and withdraw will receive their refund (if any) after the required portion of their financial aid is returned to the aiding programs. Financial aid is earned in a prorated manner on a per-day basis based on the academic calendar up to the 60-percent point in the semester. After that point, students retain 100 percent of the aid applied to their student account. The date of notification appearing on the completed withdrawal form is the date used for determining the amount of financial aid that the student will retain. Recalculation of financial aid for withdrawing students is based on the following formula: Percent of aid earned equals the number of days completed up to the withdrawal date divided by the total number of days in the semester. Students are encouraged to meet with a counselor in the Office of Student Financial Services to discuss the financial aid implications of withdrawal prior to beginning the withdrawal process.

## Sources of Assistance

"Financial aid" includes resources awarded in the form of gifts (grants and scholarships) and self-help (student employment and loans). Funding for these resources is provided by the College; federal and state government; and private organizations, businesses, and individuals. While the majority of assistance is awarded primarily on the basis of demonstrated financial need, the College also offers certain select scholarships to students based on merit, without consideration of financial need.

# MERIT-BASED ASSISTANCE

Barbara Hirschi Neely Scholarship<sup>13</sup> Up to 10 full-tuition scholarships are awarded to entering first-year students who demonstrate a commitment to learning that characterizes the best of Lewis & Clark students. Special preference is given to students committed to studying science and natural systems or intercultural and international issues. The Committee on Admissions, Awards, and Academic Standing selects recipients from a pool of outstanding applicants identified by the Office of Admissions. Scholarships are renewable based on continued academic excellence. Neely scholars are ex-pected to complete 32 semester hours per academic year, of which at least 24 are graded, and maintain a cumulative grade point average of 3.300 or

Trustee Scholarship 13 Up to 15 half-tuition scholarships are awarded to entering first-year students who demonstrate a commitment to learning that characterizes the best of Lewis & Clark students. Special preference is given to students committed to studying science and natural systems or intercultural and international issues. The Committee on Admissions, Awards, and Academic Standing selects recipients from a pool of outstanding applicants identified by the Office of Admissions. Scholarships are renewable based on continued academic excellence. Trustee scholars are expected to complete 32 semester hours per academic year, of which at least 24 are graded, and maintain a cumulative grade point average of 3.300 or higher.

<sup>13</sup> The amount of these scholarships is based on tuition and fees, including ASLC fees. See Summary of Charges in this catalog for details.

Herbert Templeton National Merit Scholarship Awards of \$750 to \$2,000 based on financial need are awarded to entering first-year students who have been selected as National Merit Scholars and have named Lewis & Clark as their first-choice college with the National Merit Corporation. To qualify, applicants must take the Preliminary Scholastic Assessment Test (PSAT) no later than their junior year of high school. Additional information is available through high school counselors or the National Merit Corporation.

**Dean's Scholarship** A number of scholarships of \$4,000 to \$8,000 are awarded by the Office of Admissions to entering students based on their academic program and performance as evidenced in the materials submitted for admission to the College. Scholarships are renewable provided the student maintains a cumulative grade point average of 3.000 or higher.

Leadership and Service Award A number of \$5,000 scholarships are awarded by the Office of Admissions to entering students based on their academic profile and exemplary commitment to leadership and service. Scholarships are renewable provided the student maintains a cumulative grade point average of 2.800 or higher and actively participates in leadership and service during his or her enrollment at the College.

Juan Young Trust Scholarship Four scholarships are awarded annually to students who attended high school in Oregon. Preference is given to students who are lineal descendants of former employees of Kienow's Food Stores and/or Kienow's Wholesale Grocery Company. These scholarships vary in amount. **R.B. Pamplin Corporation Scholarship** Two \$2,500 scholarships are awarded each spring to currently enrolled sophomore students for use in their junior and senior year. Students are invited to apply based on academic merit. Recipients are selected by the Committee on Admissions, Awards, and Academic Standing, with consideration given to community and college service as well as academic performance.

Ben B. Cheney Foundation Scholarship Five \$2,000 scholarships are awarded each spring to currently enrolled first-year students for use in their sophomore year. An additional five \$2,000 scholarships are awarded each spring to currently enrolled junior students for use in their senior year. Students are invited to apply based on academic merit. Recipients are selected by the Committee on Admissions, Awards, and Academic Standing, with consideration given to community and college service as well as academic performance. Forensics Scholarship Scholarships ranging from \$1,000 to \$6,175 are awarded annually to students who have outstanding records of achievement in debate and forensics. The amount of the award is determined on the basis of financial need. The scholarship is renewable on the recommendation of the director of the forensics program. Students may apply through the Department of Communication.

Music Scholarship Scholarships ranging from \$1,000 to \$6,600 are awarded annually to students who have outstanding musical talent. The amount of the award is determined on the basis of financial need. Participation in the music program is required for renewal. The application process includes an audition. Further information may be obtained through the Department of Music.

## NEED-BASED ASSISTANCE

See also Endowed Scholarship Funds in this catalog.

**R.** Harold Burton Scholarship One scholarship is awarded annually to an entering first-year student from Utah based on academic achievement and financial need. The scholarship is renewable based on continued academic achievement and financial need so that each class (first-year, sophomore, junior, and senior) contains a Burton scholar.

Randy Massengale Scholarship One \$10,000 two-year scholarship is awarded annually based on academic achievement and financial need to a sophomore student of African American, Native American, Hispanic American, or Asian American descent for use in his or her junior and senior year—\$5,000 each year. The Office of Ethnic Student Services in conjunction with the Office of Student Financial Services will invite eligible sophomores to apply. To be eligible, a student must have a minimum cumulative GPA of 2.500, demonstrate financial need, and have a commitment to community service. The recipient is required to achieve a minimum cumulative GPA of 2.800 in his or her junior year in order for the award to be renewed for the senior year. Oregon Independent College Foundation Scholarships A number of scholarships are awarded annually from contributions made each year to the Oregon Independent College Foundation by various local and regional businesses and individuals. Contributors include Bank of America, PacifiCorp, PGE, and United Parcel Service. These scholarships vary in amount and recipient criteria.

**Outreach Scholarship** Awards ranging from \$1,000 to \$5,000 are offered to entering students of ethnic heritage based on demonstrated financial need and academic merit. Consideration for the scholarship is based on information supplied on the application for admission to the College.

Jeanne Schnitzer Reynolds '70 Scholarship Two \$2,500 scholarships are awarded annually based on academic achievement and financial need to two students, a junior and a senior woman student, who show exemplary character and who articulate and demonstrate a love of learning by pursuing academic interests that lead to quiet successes, often measured in terms of personal growth. Preference is given to students with a 3.500 GPA or higher.

Mary Stuart Rogers Scholarship Scholarships are awarded each spring to currently enrolled sophomores and juniors for use in their junior or senior year of undergraduate study. Recipients are selected by the Committee on Admissions, Awards, and Academic Standing, with consideration given to academic achievement, outstanding leadership qualities, and financial need.

**Rae Seitz Scholarship** One scholarship is awarded annually to a student in music, with consideration given to financial need. The recipient is selected by the Office of Student Financial Services in conjunction with the Department of Music.

**Rose E. Tucker Charitable Trust Scholarship** A number of scholarships are awarded annually to deserving students, with consideration given to financial need.

Federal Parent Loan for Undergraduate Students (PLUS) Parents may borrow funds up to the total cost of their student's education minus other financial aid for each undergraduate dependent student through a local bank or lending institution. The federal government requires the lender to deduct a 3-percent origination fee and a guarantee fee of up to 1 percent from the loan principal. The interest rate is set annually at the 52-week Treasury Bill rate plus 3.1 percent and may not exceed 9 percent. Repayment begins within 60 days of the last disbursement of funds. A separate application is required. For additional information, contact the Office of Student Financial Services. Federal Pell Grant Federally funded grants are awarded to financially needy students who meet the program's specific requirements. Federal Pell Grants for the 2003-04 academic year ranged from \$400 to \$4,050.

**Federal Perkins Loan** These long-term, low-interest loans are awarded to students who demonstrate need according to federal regulations. A student may borrow an annual maximum of \$4,000 through this program, with an aggregate of \$20,000 during the undergraduate years. Actual awards vary,

contingent on available funding. The interest rate is 5 percent, with repayment beginning nine months after the student ceases to be enrolled at least half time.

Federal Stafford Loan (Subsidized and Unsubsidized) Undergraduate students may be certified by the Office of Student Financial Services to obtain a loan through a recommended lending institution. First-year students may borrow a maximum of \$2,625; sophomores may borrow up to \$3,500; juniors and seniors may borrow up to \$5,500 per year (up to an aggregate undergraduate total of \$23,000). The interest rate for new borrowers is variable and is based on 91-day Treasury Bills plus 3.1 percent. The rate is set annually and may not exceed 8.25 percent. Principal and interest payments are deferred for six months after the borrower ceases to be enrolled at least half time. The federal government also requires the lender to deduct an origination fee of approximately 3 percent of the principal and a guarantee insurance premium fee of up to 1 percent of the principal from each disbursement of the loan. Eligibility for Stafford loans is determined through the filing of the FAFSA. Students who do not qualify for a subsidized Stafford Loan may apply for an unsubsidized loan. Unsubsidized loan borrowers are responsible for the interest that accrues during in-school and grace periods, though payments may be deferred.

Federal Supplemental Educational Opportunity Grant Federally funded grants are awarded to students who demonstrate exceptional financial need, with priority given to Federal Pell Grant recipients. The amount of the grant ranges from \$500 to \$3,000 per year depending on available funding. Federal Work-Study This federally funded program provides the opportunity for students to work part-time during the academic year. Work-study positions are typically on campus and wage rates range from \$6.90 to \$8 an hour. Paychecks are issued once a month. Eligibility for this program is based on financial need as determined by analysis of the information provided on the

Lewis & Clark Grant Grants are awarded to students on the basis of financial need and overall strength as applicants to the College. Students who submit the FAFSA are considered for this funding source. Renewal of grants is not guaranteed because financial need must be assessed each year.

James F. Miller Grant Grants are awarded to academically promising students with demonstrated financial need. The grant is renewable based on continued academic achievement and financial need.

Oregon Opportunity Grant Students who are residents of Oregon may be eligible to receive assistance funded by the state. Eligibility is determined by the Oregon Student Assistance Commission using financial information provided on the FAFSA.

External Scholarships Students are encouraged to seek assistance through external sources. Students should investigate the possibility of scholarships through their parents' employers, professional associations, community organizations, fraternal groups, churches, local businesses, PTAs, veterans posts, and similar groups. Many high school counseling centers maintain free reference information on scholarship opportunities, and the World Wide Web is a good resource for information leading to these funding sources. External resources must be considered when determining a student's eligibility for assistance and are treated as a resource in addition to the expected family contribution. Students are responsible for notifying the Office of Student Financial Services of funding they are awarded from any external sources. If a student's financial aid award must be revised because of external scholarships, the College normally looks first at the loan and employment portion of the package in considering where to make a reduction.

# Financial Resources

The development of the Lewis & Clark College campus and the growth of its endowment fund have been made possible through the generosity of alumni, trustees, parents, and many friends. On May 31, 2003, the market value of the endowment was \$121 million, and the market value of trusts was \$31.4 million.

As an independent, nonprofit college, Lewis & Clark has benefited from an ongoing flow of gifts and grants in support of its programs. Annual gifts provide funds for scholarship support, for specific projects, and for operating expenditures, while capital gifts have provided the major campus buildings. Major gifts, bequests, and trusts make possible endowed professorships, scholarships, lectureships, awards, and specific programs. The College is grateful to those who have made possible the permanent endowed funds listed below.

# ENDOWED PROFESSORSHIPS<sup>14</sup>

U.G. Dubach Professorship in Political Science, established in 1966 to honor Ulysses Grant Dubach, professor and chair of political science from 1947 to 1958.

James F. Miller Professorship in the Humanities, established in 1999 by James F. Miller, who joined the Board of Trustees in 1959 and is now a life trustee. Morgan S. Odell Professorship in the Humanities, established in 1990 by friends and alumni to honor Morgan Odell, the first president of Lewis & Clark College (1942 to 1960).

The Pamplin Professorships, established in 1993 as part of the Dr. Robert B. Pamplin Ir. Society of Fellows. The four professorships focus on areas of study central to the understanding and exercise of contemporary international leadership: history, economics, government, and science. Robert B. Pamplin Jr., Lewis & Clark '64, '65, '66, now a life trustee of the College, chaired the Board of Trustees from 1991 to 1996.

James W. Rogers Professorship in Music, established in 1995 by the Mary Stuart Rogers Foundation in honor of the late James W. Rogers '64, a member of the College Choir and a lifelong supporter of the music program.

William Swindells Sr. Professorship in the Natural Sciences, established by friends and family in 1990. William Swindells was a member of the Lewis & Clark College Board of Trustees (1958 to 1981) and a life trustee (1981 to 1985). Paul S. Wright Professorship in Christian Studies, established in 1998 by Paul and Marie Wright and friends of the College. Paul S. Wright served as theologianin-residence for Lewis & Clark until his death at the age of 99.

### **ENDOWED LECTURESHIPS**

Mark Chamberlin Lectureship, established in 1980 by Mark and Corinne Chamberlin to bring to campus nationally and internationally acclaimed representatives of the Jewish and Christian communities.

National Endowment for the Humanities Film and Lecture Fund, an endowed fund from a 1980 NEH matching grant, used to bring scholars to campus for symposia and lectures.

Public Policy Lecture Fund, established in 1964 to fund the annual Herman Steinhardt Lecture honoring the former chair of the Department of Economics.

Arthur L. Throckmorton Memorial Lecture, established in 1963 in memory of the former chair of the Department of History (1957 to 1962) for an annual lecture by a distinguished historian.

<sup>14</sup> In addition to the professorships listed here, funds have been set aside for the establishment of other named professorships, not yet fully endowed.

### INSTITUTIONAL SUPPORT

Mabel M. Akin Educational Fund, established in 1963 by a bequest from Mabel Akin, Lewis & Clark trustee (1950 to 1956) and life trustee (1956 to 1963), to help support Akin Residence Hall.

Arnold Student Art Gallery Fund, established in 1997 by Mike Arnold, a trustee (1997 to 2002), and his wife, Anne, to provide support for the student art gallery in the Fields Center for the Visual Arts.

Copeland Residence Hall Fund, established in 1977 in memory of Joseph Copeland, Lewis & Clark trustee (1944 to 1962) and life trustee (1962 to 1978), for maintenance of the building.

Harry D. Haley Fund, established in 2002 by a bequest from Harry D. Haley, to provide support for the Department of Physics.

Kenneth Kinnear Religious Studies Fund, established in 1980 in honor of Kenneth Kinnear, former professor of religious studies, to assist the Department of Religious Studies.

Korean Study Grant Fund, established in 1979, to support study of East Asia. Vernon Long Memorial Fund, established in 1991 in honor of Vernon Long, former professor of physics, to support the Department of Physics colloquium. Odell Hall Fund, established in 1980 in honor of Ruth Odell, wife of Morgan Odell, first president of Lewis & Clark (1942 to 1960). Phi Kappa Phi Fund.

President's Discretionary Fund, established in 1985 with grants from the Andrew W. Mellon and William and Flora Hewlett foundations and continued through the support of individual donors.

John S. Rogers Science Research Program Fund, established in 1999 to offer outstanding science students opportunities to collaborate in significant scientific investigation with faculty mentors, and to prepare these students for careers in the sciences.

Mr. and Mrs. Laurence L. Shaw Library Fund, established in 1978 by Laurence Shaw, Lewis & Clark trustee (1963 to 1972) and life trustee (1972), and his

Raphael Spiro Discretionary Music Fund, established in 2001 by a bequest from Raphael Spiro, to provide support for the Department of Music.

Templeton Plant Fund, established in 1988 by Hall Templeton, Lewis & Clark trustee (1960 to 1969) and life trustee (1969 to 1992), to maintain and rehabilitate the physical plant.

Throckmorton-Stevens Research Fund, established in 1998 by Rosemary Stevens '57, in memory of Arthur L. Throckmorton, to support collaborative research by students and faculty.

Track and Field Maintenance Fund, established in 1989 by G. Eldon Fix, professor emeritus of health and physical education, who was Lewis & Clark's track coach from 1946 to 1981.

Olive Trubey and Inez Schuster Fund, established in 1980 by Doris Trubey '41 and Forest Trubey '46, to provide instructional support for the purchase of music, equipment, or instruments in the Department of Music.

Paul Barney Prize for Contribution to Campus Life, established in 1983 in memory of Paul, who was a Lewis & Clark student from 1979 until his untimely death in 1982. Recipient is a senior with attributes and character similar to Paul's.

Pamplin Fellowships, established in 1993 by Dr. Robert B. Pamplin Ir. Each spring seven new fellows are named from the first-year class. The society recognizes students' commitment to developing mind, body, and spirit in equal measure.

Selected by the president of the College, fellows demonstrate academic excellence, outstanding potential for leadership, dedication to community service, commitment to physical health, and unimpeachable integrity. Rena Ratte Award, established in 1970 by family and friends. Recipient is a senior who has consistently produced work of the greatest distinction. Troy Ridenour Award, established in 1987 by family and friends in memory of Troy, who was a Lewis & Clark student from 1985 until his untimely death in 1987. Recipient is a sophomore who most embodies Troy's values and spirit. Neil Sabin Championship Debate Fund, established in 1985 to honor Cornelius (Neil) Sabin, professor emeritus of communication and former director of forensics. Recipient is a member of an outstanding debate team, who receives the scholarship to help meet expenses for the next academic year.

# **ENDOWED SCHOLARSHIP FUNDS**

Lewis & Clark gratefully acknowledges the special gifts that established these named scholarship funds. For information about applying for merit scholarships and need-based aid, see the Student Financial Services section of this catalog.

George F. Aberle Scholarship Fund

Charles F. Adams Scholarship Fund

Mabel M. Akin Scholarship Fund

Albany College Scholarship Fund

John M. Allen Scholarship Fund, for male students in economics

Alumni Scholarship Fund

Lillian B. Anderson Scholarship Fund

Terry C. Angell Memorial Scholarship Fund, for student-athletes

Katherine Sabin Arnold Scholarship Fund, for women students in mathematics or science

Art Scholarship Fund, for students majoring in art

Katherine M. Arthur Memorial Scholarship Fund

Emma Bailey Scholarship Fund

Donald G. Balmer Scholarship Fund, for upper-class students in political science who demonstrate academic strength and financial need

John V. Baumler Memorial Scholarship Fund, for international students in economics

John L. Baxter Scholarship Fund, for students in art, with a preference for a student concentrating in photography

Eleanor Beard Scholarship Fund

John W. Beard Memorial Scholarship Fund, for students preparing for a church vocation

Catherine R. Beggs Scholarship Fund

Alois C. Beglinger Scholarship Fund

Edward and Rose Bensel Memorial Scholarship Fund

Berg Family Scholarship Fund

George J. and Mittie D. Bishop Scholarship Fund, for students preparing for a church vocation

Mary V. Bishop Scholarship Fund

Ralph L. Blachly Scholarship Fund, for students in science

Tressa Blackburn Scholarship Fund

Esther A. Blackwood Scholarship Fund

Mary S. Blair-Kimmel Scholarship Fund

Mary H. Blanchard Scholarship Fund

George Blodgett Scholarship Fund

Bertha O. Bodine Memorial Scholarship Fund, for women students

Eugene M. Booth Scholarship Fund

Archie E. Bradshaw Scholarship Fund

Arlee Bragg Scholarship Fund

Francis W. and Jessie L. Brodie Memorial Scholarship Fund, for international students

William A. Brooks Scholarship Fund

William A. and Effie S. Brushoff Scholarship Fund, for international students

Lester W. Buell Scholarship Fund

Jack H. Burns Scholarship Fund

Harry J. Casey Scholarship Fund

Tom M. Castlen Scholarship Fund

Collier F. and Georgia H. Cathay Scholarship Fund, for honors students

Robert T. and Mary E. Catlin Scholarship Fund

Ruth E. Clark Scholarship Fund

Class of 1950 Terry Cady Memorial Scholarship Fund

Class of 1951 Scholarship Fund

Clausen Family Scholarship Fund

John Howard Connolly Scholarship Fund, for students under 25 years of age in music, art, or theatre

Craig F. Courtemanche Scholarship Fund

Ellen Franco Cox Scholarship Fund, for students of music or voice

E. Victor Creed Scholarship Fund, for students in music

Martha J. Crick Memorial Scholarship Fund

Gerry Crockwell Scholarship Fund

Steven D. Crow Scholarship Fund

Irwin D. and Ruth Custer Memorial Scholarship Fund

Mrs. Lee Davenport Scholarship Fund

Vincent P. de Poix Scholarship Fund

John and Phoebe Dierdorff Scholarship Fund

Mary Dimond Scholarship Fund, for international students in economics

Eugene H. and Colista Dowling Scholarship Fund

Harriet Drake Scholarship Fund

Franz Drinker Scholarship Fund

Augusta Parker Dunbar Memorial Scholarship Fund, for students preparing for church service

Dusenbery Scholarship Fund

Robert Dusenbery Memorial Scholarship Fund, for a student in English

Fred and Edna F. Dysle Memorial Scholarship Fund

Rosa B. Ellison Estate Scholarship Fund

Hortense L. Eulrich Scholarship Fund

John Stark Evans Scholarship Fund, for students in music

Roscoe and Bertha Fanning Scholarship Fund

Arthur and Amy Fields Scholarship Fund

Robert W. Flowerree Scholarship Fund

Stella A. Fording Scholarship Fund, for students preparing for Christian leadership

Leonard A. Forsgren Scholarship Fund

Frederick S. Frank Memorial Scholarship Fund, for students in science

Vera Rebecca Gaittens Scholarship Fund, for handicapped women students

L. Stanley Glarum Music Scholarship Fund

John A. Gomez Scholarship Fund

Herbert H. Goodman Memorial Scholarship Fund

Joan I. Green Scholarship Fund

Douglas Clark Gregg Memorial Scholarship Fund

Graham A. Griswold Scholarship Fund

Allen and Alberta Grubb Scholarship Fund

Charles and Pauline Gurney Memorial Scholarship Fund

Charles Haldors Memorial Scholarship Fund

Dorothy Haldors Memorial Scholarship Fund

William O. Hall Scholarship Fund, for junior or senior students in international

Carl M. Halvorson Scholarship Fund

Hammett Bress Family Scholarship Fund, for sophomore, junior, or senior

students based on academic merit, with a preference for students with a 3.000 or higher grade point average

Harry Hampton Scholarship Fund

William Randolph Hearst Scholarship Fund, for low-income minority students

Paul H. Hebbs Scholarship Fund, for students in overseas studies

Mr. and Mrs. F.H. Hemphill Memorial Scholarship Fund

John B. Hess Scholarship Fund, for students in international affairs

Evelyn M. Hill Scholarship Fund

Philip S. Hill Scholarship Fund

Ronna H. Hoffman Scholarship Fund

W. Burns Hoffman Scholarship Fund

Gertrude Julie Holden Memorial Scholarship Fund, for a student in the humanities from the greater Portland area

Edna Holmes Scholarship Fund

Maurice H. Hoover Scholarship Fund

John and Ruth Howard Scholarship Fund

John R. Howard Scholarship Fund

Lloyd K. and Ana Maria Hulse Scholarship Fund, for students in Hispanic studies Warren Hunter Jr. Memorial Scholarship Fund

William J. Ingram Scholarship Fund, for students in chemistry

Herman R. and Alma Jean Inman Memorial Scholarship Fund

Margaret E. Jennings Scholarship Fund

Samuel S. Johnson Scholarship Fund

Freeda Hartzfeld and Arthur C. Jones Scholarship Fund

Opal N. Jones Memorial Scholarship Fund

Wesley Jones Memorial Scholarship Fund

Monroe A. Jubitz Scholarship Fund

Richard B. Keller Scholarship Fund

Wm. and Frances E. Kerr Scholarship Fund, for students in education, science, mathematics, or economics

Dede King Memorial Scholarship Fund, for students of music education or voice

Sam and Helen Kingery Memorial Scholarship Fund

Caroline (Caro) Kinsey Memorial Scholarship Fund

Walter S. and Nellie D. Kirby Scholarship Fund, for Oregon students in economics

Nathalie Kolliner Scholarship Fund

Donald E. and Emily G. Kontz Memorial Scholarship Fund, for junior or senior students in chemistry

Eva Priestly Kornbrodt Scholarship Fund

Robert V. and Margaret Kratzig Memorial Scholarship Fund

H. Dewayne Kreager Scholarship Fund

Goldie Chan Lam Scholarship Fund, for students of Chinese ancestry

C. Howard Lane Scholarship Fund

John T. Lansing Scholarship Fund

Sara Merner Lawrence Memorial Scholarship Fund

Wallace Howe Lee Memorial Scholarship Fund, for students with a parent who is

a minister

Kenneth Lewis Scholarship Fund

Albert and Fave Luethi Memorial Scholarship Fund

Mary Maletis Scholarship Fund

Kay Mansfield Scholarship Fund

Marius and Vinnie Marcellus Scholarship Fund, for students in pre-med studies Floyd R. Marsh Scholarship Fund

Randy Massengale Scholarship Fund, see description under Need-Based

Assistance

Carl W. Mays Jr. Scholarship Fund

W. Calder McCall Scholarship Fund

Chester E. McCarty Scholarship Fund

Chester E. and Julia C. McCarty Memorial Scholarship Fund

Jean McCracken Memorial Scholarship Fund, for women students in music

Harold A. Miller Scholarship Fund

James F. Miller Scholarship Fund

Marie Miller Scholarship Fund

Walter M. Miller Scholarship Fund

Bertha Tarr Mitchell Scholarship Fund, for women students demonstrating

financial need and who have a 3.000 grade point average or higher

Thomas Monteith Memorial Scholarship Fund, for junior or senior students in science with a 3.500 grade point average or higher

Thomas R. Montgomery Sr. Memorial Scholarship Fund

Emily Morningstar Scholarship Fund, for students in economics

Harry F. Morrow Scholarship Fund

Finley P. Mullins Scholarship Fund, for students in economics

Fred W. and Mildred Neal Scholarship Fund

Barbara Hirschi Neely Scholarship Fund, see description under Merit-Based Assistance

Paul T. Neely Scholarship Fund

Harry T. Nicholai Memorial Scholarship Fund

Jane W. Noon Scholarship Fund

Hjalmer W. and Pauline Nordstrom Scholarship Fund

International Student Scholarship in Memory of Meg O'Hara Fund, for an international student who articulates and demonstrates a love of learning, a passion to achieve higher standards, and a desire to participate in the development of the Lewis & Clark community, with consideration given to

financial need

Kristin Olson Memorial Scholarship Fund

Anthony Ostroff Memorial Scholarship Fund

Robert B. Pamplin Jr. Scholarship Fund

Robert B. Pamplin Sr. Scholarship Fund

Owen M. Panner Scholarship Fund

H.J. Park Scholarship Fund

Wayne D. Pedersen Scholarship Fund, for students majoring in economics

Florence Peebles Science Scholarship Fund

H.H. Pein Scholarship Fund

Phrynette Peniston Scholarship Fund

Carl O. Peterson Scholarship Fund, for women students in music

Frank and Maude E. Peterson Memorial Scholarship Fund

John B. Piacentini Scholarship Fund

Kenneth H. Pierce Scholarship Fund

Donald B. Pooley Scholarship Fund

Gerry Pratt Scholarship Fund

Leon Pike/Edgar Reynolds Scholarship Fund, for students in theatre, preferably design and technical theatre

Quinn Family Scholarship Fund, for students from Clatsop and Tillamook

counties, with a preference for students from Astoria High School

Charles E. Rawlinson Scholarship Fund

Reader's Digest Scholarship Fund

Waldo and Elsie Richmond Scholarship Fund, for students from Umatilla County

Robert L. Ridgley Scholarship Fund

Arthur A. Riedel Scholarship Fund

Anne Roberts Memorial Scholarship Fund, for first-year honors students

Mary Stuart Rogers Scholarship Fund, see description under Need-Based

Assistance

Richard and Miriam Rohrbaugh International Studies Scholarship Fund, for students in overseas studies

Emanuel Rose Scholarship Fund

Robert W. Roth Scholarship Fund

Betsy A. Russell Scholarship Fund

Lynn Sabin Scholarship Fund

Sack Family Scholarship Fund, for a junior or senior student with interests in international affairs, particularly public health, with consideration given to academic merit and financial need

Helen Sanders Scholarship Fund, for Native American students in history or ethnohistory

Emma C. Sanford Scholarship Fund

Emma B. Schade Scholarship Fund

Norman Schlesser Scholarship Fund

Laurence L. Shaw Scholarship Fund

Paul Shaw Memorial Scholarship Fund

Minnie B. Shively Memorial Scholarship Fund, for women students

David B. and Barbara W. Simpson Scholarship Fund, for students in economics

A.B. Smith Scholarship Fund

Edith T. Smith Memorial Scholarship Fund, for junior and senior students in economics

Edward S. and Joan F. Smith Scholarship Fund

Joan H. Smith Scholarship Fund

Sheryl Reed Smith Memorial Scholarship Fund, for students from Wallowa County

Clara Ramsden South Scholarship Fund, for students in music

Calvin Souther Scholarship Fund

Grace Spacht Memorial Scholarship Fund, for international students

Charles C. Spalding Scholarship Fund

Spencer Family Overseas Study Scholarship Fund, for students in overseas studies Lester W. Spillane Scholarship Fund

Raphael Spiro Memorial Scholarship Fund, for students majoring in or studying music who demonstrate financial need

Robert A. and Jenne G. Sprouse Scholarship Fund, for students in religious studies Edward A. and Else Stamm Scholarship Fund

Edwin M. Stanley Scholarship Fund

Steele-Reese Scholarship Fund, for students who graduated from high schools in Lemhi and Custer counties in Idaho

Avery H. Steinmetz Memorial Scholarship Fund, for students in music

F. Louis and Gertrude E. Stoeckle Scholarship Fund

Summit Scholarship Fund, for students who have participated in cocurricular

activities that benefit the academic community or community at large, with consideration given to academic achievement and financial need, and with a preference for students who have overcome special challenges

Kent Philip Swanson Jr. Memorial Scholarship for Biology Fund, for a junior and senior student in biology

Kent Philip Swanson Jr. Memorial Scholarship for Ceramics Fund, for a junior or senior student concentrating in ceramics

A. William Sweet Scholarship Fund

Ann J. Swindells Scholarship Fund

William Swindells Sr. Scholarship Fund

Winifred A. Tebbetts Memorial Scholarship Fund

Hall Templeton Scholarship Fund

Ruth Roberts Templeton Scholarship Fund, for women students

Lewis and Rachel Thayer Memorial Scholarship Fund

Nellie Tholen Scholarship Fund, for students in piano

Charles A. Tomassene Scholarship Fund

Max D. and Rose E. Tucker Memorial Scholarship Fund

Herman and Velda Turner Scholarship Fund

Kenneth A. and Jean Clare Turner Scholarship Fund, for junior and senior students from Oregon

F. Faye and Sydney Walker Memorial Scholarship Fund

Henry A. Walker Jr. Scholarship Fund

Earl D. Wantland Scholarship Fund

Howard Ross Warren Scholarship Fund, for students under the age of 25 in theatre

Robert C. Warren Scholarship Fund

Warrington-Wojtyla Scholarship Fund, for women students in the sciences Aubrey R. Watzek Scholarship Fund

Leona Weatherford Memorial Scholarship Fund

Wessinger Foundation Scholarship Fund

Susan Wilcox Memorial Scholarship Fund, for students in English, with a preference for students concentrating in creative writing

P.W. Wilke Scholarship Fund

Sidney F. Woodbury Scholarship Fund, for students from Benson High School Paul S. Wright Scholarship Fund

C. Roy and Winifred Zehntbauer Scholarship Fund

Winifred Zehntbauer Scholarship Fund, for women students in mathematics

# Campus Buildings

The Lewis & Clark College campus has developed through the gifts of many individuals since the College purchased the Fir Acres estate on generous terms from the Lloyd Frank family and moved to Palatine Hill in 1942.

# FIR ACRES ESTATE

The Frank Manor House, a 35-room Tudor-style mansion designed by architect Herman Brookman and built in 1924-25, was the centerpiece of the 63-acre estate, which also included a cottage-style gatehouse, a conservatory, and a rose garden. Today the Frank Manor House serves as the administrative core of the College. It houses the offices of Admissions, Campus Planning, President, Vice President and Provost, and the Business Office.

Its main lounge, named for Thomas and Katherine Moore Armstrong, was refurbished in 1991 and is open to general use. The terrace on the east side of the building is named for Edna Frank Holmes, one of the home's original

occupants and a Lewis & Clark trustee for more than three decades.

The Gatehouse, a stone and brick building that was part of the original Frank estate, stands at the main entrance to the campus. Originally the home of the estate's head gardener, it has since served Lewis & Clark as the president's home, a residence hall, and administrative offices. It currently houses the Office of Human Resources. The Estate Gardens include four terraces sloping down from the manor house to the rose garden and overlooking Mount Hood to the east.

Designed by Brookman as service buildings for the estate, the Albany Quadrangle is distinguished by its dovecote topped by an ornate weathervane. The building, named for Lewis & Clark's origin as Albany College, was extensively renovated and expanded in 2002. It houses the Dean of the College; the departments of Economics, International Affairs, and Political Science; the Gender Studies and Overseas and Off-Campus programs, and the Dovecote Café. The Albany Quadrangle will also be the site of events commemorating the bicentennial of the Lewis and Clark Expedition from 2003 to 2006.

The Dressing Pavilion, also known as the Bathhouse, is in the eastern recreational area, or lower campus. It has dressing rooms for men and women and faces the outdoor Lawrence Memorial Swimming Pool, named in honor of F.D. Lawrence in recognition of gifts by his wife and daughters.

### ACADEMIC BUILDINGS

Evans Music Center was built with funds from Herbert Templeton, for whom Templeton Student Center was named. At his suggestion, the music building was named for John Stark Evans, director of music at the College from 1944 to 1957. The Rae Seitz Lounge and Browsing Room was named in honor of the Portland musician and composer. The Glenn and Cora Townsend Foyer honors the generosity of the couple.

Also in Evans, the C.C. Bechtold Studio was given in tribute to C.C. Bechtold, founder of the National Hospital Association. Anna B. Swindells Classroom was donated by William Swindells Sr. in tribute to his mother. The Maud Bohlman Practice Studio was named for a Portland voice teacher who was a member of the Lewis & Clark music faculty. Margaret N. Steinmetz Studio, used for small ensemble work, is named in honor of Margaret Steinmetz, a member of the music faculty until her death in 1955.

The Biology-Psychology building, designed by Paul Thiry, opened in 1972. Classrooms, faculty offices, and laboratories occupy the three levels.

Opened in 1946, BoDine is named in memory of Dr. Charles BoDine, a Portland physician, and his wife, Elizabeth BoDine, a Lewis & Clark trustee. Originally a science building, BoDine now houses the Communication, Mathematical Sciences, and Sociology and Anthropology departments.

Fir Acres Theatre, made possible by the generosity of 465 individuals, foundations, and corporations, opened its first production in February 1977. Performance space includes two separate areas. The Main Stage offers seating for 225 people. The Black Box studio-theatre allows seating to be arranged for each performance, and is also used as a classroom and dance studio.

The Olin Center for Physics and Chemistry was completed in 1979 with funds from the F.W. Olin Foundation. The spacious facilities hold wellequipped biochemistry, computer science, advanced physics, advanced chemistry, seismic, and instrumentation laboratory rooms. Research space is available for faculty and students, including equipment for microscopy; synthetic inorganic, organic, and bioorganic chemistry; and solid-state physics. The observatory with its Newtonian telescope capping the roof is named for James H. Karle '51, professor emeritus of physics. Also located on the roof is a research greenhouse.

Construction of the Campus Safety building, located near the Chapel and the Gatehouse, began in June 1976. Visitor Information is located here.

In 1996 the College opened some of its newest academic buildings, part of a cluster designed by Thomas Hacker and Associates. The James F. Miller Center for the Humanities, Fred W. Fields Center for the Visual Arts, and south wing of the Aubrey R. Watzek Library (see below) surround the Alumni Circle, which was designed to echo the cobblestone circle to the south across the Estate Gardens. The circle's name honors Lewis & Clark's alumni, especially the alumni donors whose names are inscribed on steps and on a plaque at the edge of the circle.

The Fields Center, home to the undergraduate department of Art, is named for donor Fred W. Fields, former president of Coe Manufacturing Company and chair of Lewis & Clark's Board of Trustees. Within Fields Center, support for the photography studio came from Julia M. Robertson, a '94 graduate in art, and the Eastman Kodak Company; and for a faculty office space from Julia Robertson's parents, Mr. and Mrs. William S. Robertson. Trustee Wood Arnold and Anne Arnold, parents of an alumnus who majored in art, provided support for the student art gallery. The graphic arts laboratory is named for the E.L. Wiegand Foundation; additional support for the computer graphics program came from Hans and Mary Jane Wurster, parents of a 1995 graduate in art. The painting studio is named for Patti Babler and life trustee Lloyd Babler '57, parents of an alumna, and a lecture room is named for the Collins Foundation. The drawing porch overlooking the Estate Gardens from the east end of the building is named for Samuel C. Wheeler, a life trustee.

The Miller Center provides 13 classrooms and houses the departments of English, Foreign Languages, History, Philosophy, and Religious Studies. James F. Miller, investment adviser and philanthropist for whom the building is named, is a life trustee of Lewis & Clark. Auditoriums on the ground floor are named for Keith E. Lindner '81 and for Mary Bishop, vice chair of the Board of Trustees, and Broughton Bishop, parents of an alumnus. The Interactive Learning Center on the second floor is dedicated to the W.M. Keck Foundation. Classrooms are named for William K. Blount, trustee; the Collins Foundation; W. Burns Hoffman, life trustee; Wan Koo Huh, parent of a Lewis & Clark alumna, former trustee; Charles I. Swindells '66, trustee; Bruce Willison, life trustee, and Gretchen Willison; and the late John Harrington, professor of philosophy from 1946 to 1975.

In January of 2003, the College began construction of Howard Hall. To be named for John R. Howard, the College's second president on Palatine Hill and a steward of the social sciences, this new building will replace the Faculty Offices building. Howard Hall will bring under one roof the instructional and office spaces of the College's social science disciplines, including Communication, Economics, International Affairs, Political Science, Psychology, Sociology and Anthropology, Gender Studies, and Political Economy.

Named for Portland lumber executive and philanthropist Aubrey R. Watzek, the Watzek Library opened in 1967 and was renovated to more than twice its previous size in 1994-95. In designing the renovation, architect Thomas Hacker retained important elements of Paul Thiry's original design, highlighting the library's strategic location on campus with window expanses overlooking surrounding trees. The new design also enhanced the library's central educational role with space that welcomes students and faculty and

provides for the library's collections, equipment, and study areas.

The central space of the Watzek Library is the Monroe A. Jubitz Atrium, named for a College benefactor and longtime trustee and life trustee. The large reading room in the south wing is named for James E. and Jane T. Bryson. Jane Templeton Bryson, for whose family Templeton Student Center is named, is a life trustee. Also in the south wing, two large halls are named to honor foundation donations: the lower level for the M.J. Murdock Charitable Trust, and the upper level for the Meyer Memorial Trust.

Additional spaces in the library include the Dr. Robert B. Pamplin Jr. Society of Fellows Room (see Pamplin Society in this catalog); the Ann J. Swindells Seminar Room, named for a life trustee; the Claude and Louise Rosenberg Director's Office Suite, named for the parents of an alumnus; and the Christopher E. Jay '72 New Book Lounge. An Information Technology classroom is named for Laurence Whittemore, parent of an alumna.

The Lewis and Clark Heritage Room at the center of the library houses special collections. Furnishings in the Heritage Room were the gift of the late Eldon G. Chuinard, who also donated to the College his extensive collection of materials on the Lewis and Clark Expedition. With the addition in recent years of other significant collections on Lewis and Clark, the College now holds the finest known collection of printed materials on the expedition. Also in the Heritage Room is the William Stafford collection, which includes the published works of the noted Lewis & Clark professor of English and former poet laureate of Oregon. The William Stafford Room on the upper floor contains memorabilia and writings of Stafford and is one of the many rooms designated for study in the library.

Watzek Library has more than 500 spaces for student study and an open microcomputer laboratory. Study rooms are named for the Ben B. Cheney Foundation; the Autzen Foundation; the Rose E. Tucker Charitable Trust; life trustee Elizabeth "Becky" Johnson; life trustee Robert H. McCall and Carol McCall, parents of an alumna; and Donald Leonard, a friend of the College. Scores of library carrels and study tables carry the names of parent donors.

The offices of Information Technology and the Writing Center are located in the library, and the College's Ronna and Eric Hoffman Gallery of Contemporary Art occupies the ground floor of the south wing addition. The gallery is named for life trustee Ronna Hoffman and her husband, Eric Hoffman.

Agnes Flanagan Chapel, designed by Paul Thiry, was dedicated in 1969. George and Agnes Flanagan donated approximately half of the total cost of the 16-sided structure. They also initiated the fund that would bring an 85-rank Casavant organ to the chapel. With seating for 600 people, the chapel serves as a meeting place for lectures, musical performances, and religious services. It also houses the office of the dean of the chapel. The Wallace Howe Lee Memorial Bridge, the broad walkway into the main entrance, was named for the former president and lifelong friend of Albany College. The statues that flank the bridge, depicting the gospel writers Matthew, Mark, Luke, and John through Northwest Coast Indian images, are by the late artist, Chief Lelooska.

## ATHLETICS FACILITIES

Pamplin Sports Center was designed by Stanton, Boles, McGuire, and Church and opened in 1969. The building is named in recognition of the Pamplin family's service and leadership at Lewis & Clark. Robert B. Pamplin Sr. joined the Board of Trustees in 1956 and was twice elected chair before becoming a life trustee. Dr. Robert B. Pamplin Jr. earned degrees from Lewis & Clark in

1964, 1965, and 1966. Now a life trustee, he chaired the Board of Trustees from 1991 to 1996.

The expansive facility includes a main gymnasium that can seat 2,300 people and has three full basketball courts, as well as a fully equipped weight room, aerobics room, locker rooms, a theatre-style classroom, training room, and offices.

Zehntbauer Swimming Pavilion holds a competition-size pool and spectator seating for 200 people. It is named for two friends of the College, C.R. and John Zehntbauer, founders of the company that became Jantzen.

Adjacent to Pamplin Sports Center, Griswold Stadium contains seating for 3,600 people (1,800 covered), a synthetic sports field, and polyurethane track. Graham Griswold, trustee and chair of the board, donated most of the materials to construct the stadium in 1953.

The stadium field surface was renovated in 1999 with an AstroTurf 12 all-weather playing surface. The level field drains vertically and features an irrigation system to reduce heat and enhance the playing condition of the surface. The field also has full inlaid markings for soccer and football.

Eldon Fix Track is named for Eldon Fix, Lewis & Clark track and field coach from 1946 to 1981. The track was renovated in 1991 and resurfaced in 1999. The Pioneer sports facilities include six tennis courts—three outdoor courts and three covered by an airdome for year-round play.

Joe Huston Memorial Sports Complex is named in honor of Lewis & Clark's football coach from 1947 to 1964. He was also director of athletics and taught health and physical education courses. The complex, just down the hill from the main campus and behind the law school, is the home of Lewis & Clark's baseball and softball teams, and is equipped with dugouts, scoreboards, and batting cages.

# RESIDENCE HALLS

The first permanent residence hall on campus, Akin Hall, was completed in 1949. Its name honors Otis and Mabel Akin for their service to the College. Stewart Hall, opened in 1951, is named in memory of Cora Irvine Stewart. Stewart was a member of the first Albany College graduating class, and later the Albany faculty. She was also the daughter of one of the College's founders.

Built in 1957, Ruth Odell Hall is named in honor of the wife of Morgan Odell, former president of the College.

Platt-Howard Hall, completed in 1960, is named for two men who made significant contributions to the quality of life at the College. Clemmer Platt served as secretary to the Board of Trustees for 28 years. Charles Howard was dean of the College from 1944 to 1958 and vice president from 1958 to 1963. Stanton, Boles, McGuire, and Church designed Platt-Howard.

In 1963 Copeland Hall was dedicated to Joseph and Helen Copeland. He was a philanthropist, lumber executive, and life trustee. She was a past president of the Women's League of Lewis & Clark.

The Forest residence complex consists of five buildings named for Pacific Northwest trees: Alder, Juniper, Manzanita, Ponderosa, and Spruce. The Tamarack Lounge is a central location for student gatherings.

Hartzfeld Hall was designed by Paul Thiry and named for Freeda Hartzfeld Jones, dean of women and assistant to the president from 1943 to 1968.

In 2002, the College completed three 56-bed residence halls (West Hall, Roberts Hall, and East Hall) designed specifically for junior and senior students. Roberts Hall is named in honor of the late Rev. Harold Roberts and Gertrude Roberts, the parents of donor Maggie Roberts Murdy. It also houses Maggie's Café. East Hall contains a student recreation center. These new halls are the first phase of the redevelopment of the residential sector of the campus.

### TEMPLETON STUDENT CENTER

Built in three stages, Templeton Student Center opened in 1956. The main student dining room, Arthur L. Fields Dining Room, is named for the 1962-63 chair of the Board of Trustees. Edward Stamm, for whom Stamm Dining Room is named, was a Lewis & Clark trustee and chair of the board. The courtyard that lights the inner rooms of Templeton is named for Thornton Munger, who was a Lewis & Clark trustee.

The Thayer Rooms are named for Lewis Thayer, professor of chemistry from 1946 to 1973 and a former dean of faculty. The U.G. Dubach Computer Lab is named for the professor who founded the political science department. Edward Geary, for whom the Geary Room is named, was the third president of Albany College and one of its founders. The Monteith Room is named for Monteith family members who played a central role in founding Albany College in 1867. The Gray Room is named for William Henry Gray, whose daughter was a donor to the College for many years. The Council Chamber, added in 1963, is modeled after the Assembly Hall of the United Nations in New York.

Successive renovations of Templeton Student Center from 1990 to 1995 brought under one roof all the major student organizations as well as administrative offices directly serving students. Facilities include the offices of Student Support Services, Bon Appetit Food Service, Cashier and Credit, Center for Service and Work, College Outdoors, the Dean of Students, Ethnic Student Services, International Student Services, the Registrar, Residence Life, Student Activities, Student Development Center, and Student Financial Services. Offices for student government, programming, scheduling, and media are located near each other on the main level. The Bookstore, Counseling Center, Health Center, Mail Room, and Trail Room (cafeteria-style dining) are also located in Templeton Student Center.

# LAW SCHOOL

Five years after the 1965 merger of Northwestern College of Law with Lewis & Clark College, the law school's three-building complex overlooking forested Tryon Creek State Park was completed. The Paul L. Boley Law Library is named for the late Oregon attorney, trustee of the Murdock Charitable Trust and first chair of the Law School Standing Committee. The Chester E. McCarty Classrooms building is named for a 1929 graduate of the law school who was a Lewis & Clark trustee and member of the law school's Board of Visitors and Standing Committee.

The Gantenbein Building was named for Judge John Gantenbein, son of Judge Calvin Gantenbein, the school's second dean. During World War II, John Gantenbein pledged all of his personal assets to keep the school going. Gantenbein houses the Legal Writing Center, Career Services, and student organizations. The Legal Research Center, completed in 1977, is named in honor of William Swindells Sr., a member of the Board of Trustees and the Law School Standing Committee. He requested his name not be on the building. The Legal Research Center houses a cafeteria, student lounge, faculty offices, research facilities, meeting rooms, and student services.

Wood Hall was named for Louise Wood and her late husband, Erskine Wood Sr., a noted admiralty lawyer. Dedicated in February of 2002, the newly constructed Wood Hall, along with the renovated Boley Library, is the first phase of major renovation and expansion. The building houses the environmental and natural resources and business law programs as well as faculty and

staff offices, classrooms, student organization offices, a computer lab, a reading room, and a rare books room.

### SOUTH CAMPUS

In May of 2000, the Lewis & Clark campus was enlarged to include 18 acres located immediately to the south of the College. The former Hamilton F. Corbett estate had been owned and used as a retreat center by the Sisters of St. Francis of Philadelphia since 1943—one year after the College moved to the Fir Acres estate.

The mansion on the Corbett estate, finished in 1929, was the first solo commission for architect Pietro Belluschi, who during the following three decades went on to design and inspire some of this nation's most impressive and stately buildings. Frederick Olmsted, son of the architect who laid out Central Park in New York City, designed the gardens. The Franciscans later added other buildings and facilities to accommodate the needs of their retreat and conference center.

Rogers Hall, completely remodeled in 2001 to accommodate graduate programs in education and counseling, is named for Mary Stuart Rogers, educator and philanthropist.

# COOLEY HOUSE

In November of 2001, Sue D. Cooley, widow of Edward H. Cooley, the founder and longtime head of Precision Castparts Corporaton, donated the Cooley family home for use as a presidential residence. The house was designed in an English Tudor style by architect Ellis F. Lawrence in 1920 for Cameron Squires. The Olmsted Brothers designed the landscaping of the eight-acre estate, which is located in the Dunthorpe neighborhood near the College. In addition to serving as the president's home, the newly renovated Cooley House provides a venue for hosting a variety of College functions.

# **Faculty**

Lewis & Clark College has 106 tenured and tenure-track faculty members and

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10 lecturers and senior lecturers. Ninety-eight percent of the continuing faculty have the terminal degree in their field of expertise. Each year approximately 14 faculty members are absent from campus on sabbatical leave or as leaders of overseas groups. During their absence they are replaced by qualified visiting faculty. In addition several part-time faculty members supplement the full-time faculty.

The following list includes all tenured and tenure-track faculty, lecturers, and senior lecturers, as well as visiting faculty who are teaching courses in the College during the 2003-04 academic year. For information about faculty members' teaching fields, see faculty listings under each department.

### FULL-TIME FACULTY

Nicole Aas-Rouxparis, professor of French. Ph.D. 1984, M.A. 1976 University of Oregon. B.A. 1969 Portland State University.

Katharina Altpeter-Jones, instructor in German. M.A. 1995 Bayerische Julius-Maximilians-Universität, Würzburg, Germany.

Linda Isako Angst, assistant professor of anthropology. Ph.D. 2001, M.Phil. 1993 Yale University. M.A. 1990 University of California at Berkeley. B.A. 1977 Kenyon College.

**Stephanie K. Arnold,** dean of arts and humanities and professor of theatre. Ph.D. 1977, M.F.A. 1972, M.A. 1971 University of Wisconsin at Madison. B.A. 1969 Stanford University.

Lyell Asher, associate professor of English. Ph.D. 1990, M.A. 1984 University of Virginia. B.A. 1980 Vanderbilt University.

Jane Monnig Atkinson, vice president and provost, and professor of anthropology. Ph.D. 1979, M.A. 1972 Stanford University. A.B. 1971 Bryn Mawr College.

Kellar Autumn, associate professor of biology. Ph.D. 1995 University of California at Berkeley. B.A. 1988 University of California at Santa Cruz. Barbara A. Balko, associate professor of chemistry. Ph.D. 1991 University of California at Berkeley. A.B. 1984 Bryn Mawr College.

Eleonora Maria Beck, associate professor of music. Ph.D. 1993, M.Phil. 1991, M.A. 1989 Columbia University. B.A. 1983 Barnard College.

David M. Becker, senior lecturer in music and director of bands. M.M.E. 1975, B.M. 1971 University of Oregon.

Mark W. Becker, assistant professor of psychology. Ph.D. 2000, M.A. 1995 University of California at San Diego. B.S. 1991 Union College.

**Stephen Dow Beckham,** Dr. Robert B. Pamplin Jr. Professor of History. Ph.D. 1969, M.A. 1966 University of California at Los Angeles. B.A. 1964 University of Oregon.

Debra Beers, lecturer in art and program head of drawing. M.F.A. 1980, M.A. 1979 University of Iowa. B.A. 1976 Western Washington University. Clifford T. Bekar, assistant professor of economics. Ph.D. 2000, M.A. 1992, B.A. 1990 Simon Fraser University.

Dorothy W. Berkson, professor of English. Ph.D. 1978, M.A. 1973 University of Illinois. B.A. 1961 University of Washington.

Andrew Bernstein, assistant professor of history. Ph.D. 1999, M.Phil. 1996, M.A. 1994 Columbia University. B.A. 1990 Amherst College.

Paulette F. Bierzychudek, William Swindells Sr. Professor of Natural Sciences. Ph.D. 1981 Cornell University. B.S., B.A. 1974 University of Washington.

Greta J. Binford, assistant professor of biology. Ph.D. 2000 University of Arizona. M.S. 1993 University of Utah. B.A. 1990 Miami University. Michael L. Broide, associate professor of physics. Ph.D. 1988 Massachusetts Institute of Technology. M.S. 1981, B.S. 1981 University of California at Los Angeles.

Stewart Buettner, professor of art history. Ph.D. 1973 Northwestern University. B.A. 1964 Virginia Military Institute.

John F. Callahan, Morgan S. Odell Professor of Humanities. Ph.D. 1970, M.A. 1964 University of Illinois. B.A. 1963 University of Connecticut. David A. Campion, assistant professor of history. Ph.D. 2002, M.A. 1997 University of Virginia. B.A. 1991 Georgetown University.

Yung-Pin Chen, assistant professor of mathematics. Ph.D. 1994 Purdue University. B.S. 1984 National Chengchi University, Taiwan.

Cecilia Chessa, assistant professor of political science. Ph.D. 1998, M.A. 1993 University of Washington. B.A. 1987 University of South Florida.

Peter G. Christenson, professor of communication. Ph.D. 1980 Stanford University. M.A. 1973 University of Oregon. B.A. 1968 Dartmouth College. Lisa Claypool, assistant professor of art history. Ph.D. 2001 Stanford

University. M.A. 1994 University of Oregon. M.A. 1990 University of Chicago. B.A. 1986 Kalamazoo College.

Kenneth E. Clifton, assistant professor of biology. Ph.D. 1988 University of California at Santa Barbara. B.A. 1981 University of California at San Diego. Alan Cole, associate professor of religious studies. Ph.D. 1994 University of Michigan. M.A. 1988 University of Virginia. B.A. 1985 Middlebury College. **Rebecca Copenhaver**, assistant professor of philosophy. Ph.D. 2001, M.A. 1998 Cornell University. B.A. 1993 University of California at Santa Cruz. Andrew Cortell, assistant professor of international affairs. Ph.D. 1994, M. Phil. 1993, M.A. 1988 Columbia University. B.A. 1986 Wesleyan University. Chana B. Cox, senior lecturer in humanities. Ph.D. 1971 Columbia University. B.A. 1964 Reed College.

Janet E. Davidson, associate professor of psychology. Ph.D. 1989, M.Phil. 1987, M.S. 1985 Yale University. B.S. 1975 University of Washington. Susan E. Davis, lecturer in theatre and program head of dance. M.F.A. 1991, B.A. 1981 Connecticut College.

Anne Dawid, professor of English. Ph.D. 1989 University of Denver. M.A. 1986, B.A. 1982 San Francisco State University.

Keith Dede, assistant professor of Chinese. Ph.D. 1999, M.A. 1993, B.A. 1988 University of Washington.

Isabelle C. DeMarte, assistant professor of French studies. Ph.D. 1999, M.A. 1993 Michigan State University. M.A. 1992 Université Blaise Pascal. B.A. 1990 Université de la Sorbonne Nouvelle.

Brian T. Detweiler-Bedell, assistant professor of psychology. Ph.D. 2001, M. Phil. 2000, M.S. 1998 Yale University. M.A. 1995, B.A. 1994 Stanford

Jerusha Detweiler-Bedell, assistant professor of psychology. Ph.D. 2001, M. Phil. 1998, M.S. 1997 Yale University. M.A. 1995, B.A. 1995 Stanford University.

Dinah Dodds, professor of German. Ph.D. 1972, M.A. 1969 University of Colorado. B.A. 1964 Pomona College.

Peter Drake, assistant professor of computer science. Ph.D. 2002 Indiana University. M.S. 1995 Oregon State University. B.A. 1993 Willamette University.

James A. Duncan, professor of chemistry. Ph.D. 1971 University of Oregon. B.A. 1967 Luther College.

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College lies with the Board of Trustees, which is legally empowered to appoint the College's president and make major financial and planning decisions. The board formally approves the academic programs of the College, the annual budget, and the granting of earned and honorary degrees.

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W. Burns Hoffman, Santa Barbara, California. President (retired), Hoffman Construction Company.

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Emanuel Rose, Portland, Oregon. Rabbi, Congregation Beth Israel.

Harold J. Schnitzer, Portland, Oregon. President, Harsch Investment

Corporation.

Charles C. Spalding, Honolulu, Hawaii. Civic Affairs.

Lester W. Spillane J.D. '37, Napa, California. Retired.

Edward A. Stamm, Palm Desert, California. Vice President (retired), Tumac Lumber Company.

A. William Sweet, North Bend, Oregon. Chairman (retired), Western Bank.

Ann J. Swindells, Portland, Oregon. Civic Affairs.

Cyrus Y. Tsui, Hillsboro, Oregon. President, CEO, and Chairman, Lattice Semiconductor Corporation.

Samuel C. Wheeler, Portland, Oregon. Vice President, Barclay Logging Company.

Bruce G. Willison, Los Angeles, California. Dean, School of Business, University of California at Los Angeles.

Carlton Woodard, Cottage Grove, Oregon. Retired.

Richard L. Woolworth '63, Portland, Oregon. Chairman and CEO, The Regence Group.

# College Profile

### Founded

1867, four-year, private college of liberal arts and sciences.

#### Location

Campus on 137 acres in a wooded, residential area six miles from downtown Portland, Oregon (metropolitan area population 1.8 million). Pacific Ocean 80 miles to the west; Mount Hood and the Cascade Mountains 50 miles to the east.

#### Climate

Temperate (winter temperatures rarely reach freezing, summer temperatures rarely go above 85 degrees). Average precipitation is 37 inches.

Operating budget, \$92.8 million (2003-04)

Endowment, \$121 million (market value, May 31, 2003)

Trusts, \$31.4 million (market value, May 31, 2003)

Private gift income, \$7.4 million (2002-03)

#### Alumni

More than 18,500 alumni of the College of Arts and Sciences living throughout the United States and around the world. Alumni groups active in nine U.S. cities and in Japan, South Korea, Southeast Asia, Europe, and the United Arab Emirates.

#### ACADEMICS

Undergraduate Degree

Bachelor of Arts

Academic Calendar

Two 15-week semesters and summer school

Faculty-Student Ratio

1:12

Class Size

89% of classes have 29 or fewer students. Average class size is 18.

# Faculty

100% of tenured and tenure-track faculty hold a Ph.D. or highest degree in field. Professional Recognition

Faculty grants received from the American Council of Learned Societies, American Heart Association, Association for Asian Studies, Booth Ferris Foundation, Arthur Vining Davis Foundations, Exxon Foundation, Sherman Fairchild Foundation, Fetzer Institute, Ford Foundation, German Academic Exchange Service, Herbert Hoover Presidential Library Association, Japan Foundation, W.M. Keck Foundation, W.K. Kellogg Foundation, Eastman Kodak Company, Henry R. Luce Foundation, Medical Research Foundation of Oregon, Andrew W. Mellon Foundation, Metropolitan Center for Far Eastern Art Studies, Multnomah County, M.J. Murdock Charitable Trust, National Endowment for the Humanities, National Institutes of Health, National Science Foundation, National Writing Project, Oregon Community Foundation, Oregon Department of Education, Petroleum Research Fund of the American Chemical Society, Prio Corporation, Research Corporation, Ralph L. Smith Foundation, Tektronix, U.S. Department of Agriculture, U.S. Department of Education, U.S. Department of the Interior.

#### National Student Honors, 1989-2003

Ford Foundation Fellowship (1), Fulbright Scholarships (15), Goldwater Scholarships (12), Hertz Foundation Fellowships (2), Howard Hughes Medical Institute Fellowship (1), Madison Fellowships (2), Mellon Fellowships (2), National Endowment for the Humanities Younger Scholar Award (1), National Science Foundation Graduate Research Fellowships (9), NCAA Postgraduate Scholarship (1), Rhodes Scholarship (1), Truman Scholarships (7), Udall Scholarships (2), Wilson Fellowships (2).

#### CURRICULUM

Majors (■), Minors (□), Academic Offerings (○)

Academic English Studies (ESL)

			Anthropology, See Sociology/Anthropology
_			Art
-			Biochemistry
-			Biology
-	_		Characteristics
•			Chemistry
			Chinese
•			Communication
			Computer Science
			Computer Science & Mathematics
		0	Creative Writing
		0	Dance
			East Asian Studies
			Economics
		0	Education
		0	Engineering (3-2 and 4-2 Programs)
			English
•			Environmental Studies
			Foreign Languages
			French Studies
			Gender Studies
	_	0	Geological Science
			German Studies
		0	Greek
			Hispanic Studies
-			History
-	ш		International Affairs
-		0	Internships and Practica
		0	Japanese
			Latin American Studies
_			Mathematics
-			Music
•			
		0	Off-Campus Study
_		0	Overseas Study
			Philosophy
		0	Physical Education
			Physics
			Political Economy
			Political Science
		0	Pre-Dental Curriculum
		0	Pre-Law Curriculum
		0	Pre-Med Curriculum
		0	Pre-Vet Curriculum
•			Psychology
			Religious Studies
			Russian
			Sociology/Anthropology
			Spanish, see Hispanic Studies
			Student-Designed Major
			Theatre

### **International Programs**

One of the nation's strongest international education programs, including a requirement to participate in an approved overseas program or take two courses on campus that focus on the history and culture of another region of the world.

Overseas and Off-Campus Study

Approximately 25 programs annually. Most groups have 20 to 24 student

participants, one faculty leader. More than 60% of graduating seniors have participated in a program. Since the overseas program began in 1962, more than 8,800 students and 198 faculty members have participated in 534 programs in 66 countries or geographic areas. Some 70% of Lewis & Clark's programs go to countries outside Western Europe.

### Scheduled Programs, 2004-07

Language-intensive programs: Chile, China, Dominican Republic, France, Germany, Japan, Russia, Senegal.

Semester general culture programs: Australia, China, Dominican Republic, East Africa, Ecuador, England, France, India, Italy, Japan, Scotland, Spain.

Semester domestic programs: New York City; Washington, D.C.

Summer programs: China, Ecuador, Kenya, Scotland.

#### English as a Second Language

Students from 60 countries have enrolled in Lewis & Clark's English language courses since 1972. Formerly known as the Institute for the Study of American Language and Culture, the program is now called Academic English Studies.

#### STUDENTS

### Enrollment, Fall 2002

College of Arts and Sciences: 1,763 Also enrolled at Lewis & Clark: Graduate School of Education: 567

School of Law: 721

Academic English Studies Program: 25

## Geographic Distribution, Fall 2002

18% California

17% Oregon

11% Northeast

10% Midwest

10% Washington

9% Southwest

9% Mountain States

5% International citizens

5% Alaska/Hawaii/Guam

4% Southeast

U.S. students abroad

States represented: 47

Countries represented: 44

### First-Year Class, 2003-04: Class of 2007

3,509 students applied; 65% admitted

500 students enrolled<sup>15</sup>

74% from public high schools, 26% private

79% in top quarter of graduating class

13% members of an ethnic minority

Ranges for middle 50% of class:

- GPA 3.5–3.9
- SAT I 1200-1350
- ACT 26-30

#### **FACILITIES**

#### Aubrey R. Watzek Library

More than 730,000 items including books, documents, audiovisual materials,

microforms, and periodicals. Houses the most extensive collection of printed materials known to exist on the Lewis and Clark Expedition. Open computer lab and more than 500 spaces for student study. Library open 24 hours on weekdays during fall and spring semesters.

Extensive laboratory facilities for teaching and student-faculty research in physics, chemistry, computer science and mathematics, and biology plus access to field stations across the state. Scanning electron microscope, well-equipped molecular biology laboratory, greenhouse, equipment for field biology, gas chromatograph/mass spectrometer, high performance liquid chromatograph, 300 MHz FTNMR broad band spectrometer, atomic absorption spectrometer, diode array UV-VIS spectrophotometers, molecular modeling laboratory, observatory with Newtonian and solar telescopes, computer-enhanced optical microscope, solid-state physics laboratory with variable temperature cryostat and superconducting magnet, three-directional seismograph, UNIX-based computer class laboratory, Mathematica classroom.

#### Computers

Access to over 130 publicly available microcomputers and to specialized peripherals such as color scanners, color printers, digital cameras, and digital video editing—all connected via a campus network that also provides highspeed access to the Internet. Direct Internet access available in all residence halls. Wireless network access available in Watzek Library, Boley Law Library, and other public spaces on campus. Further expansion planned. Most computing resources available free of charge, 24 hours a day throughout the academic year.

#### Fir Acres Theatre

225-seat Main Stage performance/teaching theatre, Black Box experimental teaching theatre, scene shop, costume room, green room, design lab.

410-seat performance auditorium, 22 practice rooms, 43 pianos, 2 harpsichords, 4 pipe organs including an 85-rank Casavant pipe organ, Javanese gamelan, electronic music lab, piano lab.

Studio facilities for drawing, painting, sculpture, ceramics, computer graphics, graphic design, photography. Hoffman Gallery of Contemporary Art and Arnold Gallery for student art.

#### Athletics

Pamplin Sports Center: gymnasium (2,300 capacity), six tennis courts (three covered by heated airdome), fully equipped weight room, extensive training room, locker rooms. Zehntbauer Swimming Pavilion: indoor competition pool. Huston Sports Complex: baseball and softball fields. Griswold Stadium-Eldon Fix Track (3,600 capacity): synthetic AstroTurf playing field, world-class polyurethane track. Outdoor pool.

#### STUDENT LIFE

#### Residence Life

Ten residence halls staffed by full-time resident directors and student resident assistants. Active participation by students in residence hall councils and association. First-year and second-year students required to live on campus. All residence halls smoke free.

#### Food Service

Options ranging from 7 to 19 meals per week, plus flex plans; vegetarian and vegan options at all meals.

#### Student Services

Academic Advising, Campus Safety, Center for Service and Work, Chaplaincy, Counseling Center, Disability Services, Ethnic Student Services, Health Center, International Student Services, Math Skills Center, Residence Life, Student Activities, Student Development Center, Student Financial Services, Student Support Services, Writing Center.

### Clubs and Interest Groups

Over 60 student organizations. No fraternities or sororities.

#### Music Groups

Jazz Ensemble, Wind Symphony/Orchestra, Cappella Nova, Javanese Gamelan, Opera/Musical Theatre, West African Rhythms, African Marimba.

#### College Outdoors

Over 50 outdoor expeditions per year including hiking, backpacking, skiing, snowshoeing, whitewater rafting, camping, caving, kayaking. Wilderness First Responder and Wilderness Leadership courses annually.

#### Athletics

Over 40% of students participate in one or more of 19 varsity, 7 club, and numerous intramural sports. The College belongs to the National Collegiate Athletic Association (NCAA) Division III and Northwest Conference.

#### Varsity Sports Club Sports Men (■), Women (□) Men (**■**), Women (□), Coed, (○) Baseball Lacrosse Basketball Martial arts Crew Rugby Cross country Sailing 0 Football Soccer Golf Ultimate Frisbee Soccer Softball Swimming Tennis Track and field П Volleyball

#### Media

Radio station, weekly newspaper, yearbook, environmental studies journal, literary magazine, international affairs journal, foreign languages journal, film and video production studio, gender issues magazine, journal of dramatic literature.

#### Cultural Arts

Comprehensive program of films, speakers, concerts, theatre, dance performances, art exhibits.

#### Religious Life

600-seat chapel, regular ecumenical services, Interfaith Council, monthly Catholic Eucharist, monthly Taize prayer. Student groups including Catholic Group, Christian Science Fellowship, Episcopal Campus Ministry, InterVarsity Christian Fellowship, Jewish Student Union, Latter-day Saints (Mormon) Group, Muslim Prayer Fellowship, OFCS (O' for Christ's Sake), Unitarian Universalist Group, Zen Sangha Buddhist Meditation Group.

#### Costs, 2003-04

Tuition and fees: \$24,686 Health insurance: \$780

Room and board, 14-meal plan: \$6,890<sup>16</sup>

Room and board, 19-meal plan: \$7,140<sup>16</sup> Books and personal expenses (estimate): \$1,800

### FINANCIAL AID

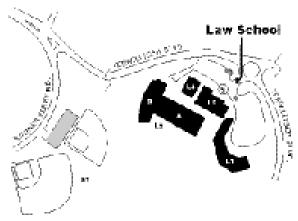
70% of students receive financial assistance through merit-based scholarships, need-based grants, loans, or employment. More than \$23 million in financial aid distributed annually in awards ranging from \$500 to \$33,350.

# **B**UILDINGS AND FEATURES<sup>17</sup>

- 1 Griswold Stadium
- Tennis Courts
- Pamplin Sports Center
- Zehntbauer Swimming Pavilion
- 9 Appalachia
- 10 Evans Music Center
- Biology-Psychology 11
- 12. **BoDine**
- 14 Albany Quadrangle
- 15 Fir Acres Theatre
- Olin Center for Physics & Chemistry
- 18 Greenhouse (access through Olin)
- 20 Alumni Circle
- Tennis Court 21
- 2.2. Rose Garden
- 23 Outdoor Pool & Dressing Pavilion
- Fields Center for the Visual Arts
- 25 Miller Center for the Humanities
- 26 Watzek Library
- 26S Ronna and Eric Hoffman Gallery of Contemporary Art
  - 27 Estate Gardens
  - Frank Manor House
  - 29 Flanagan Chapel
  - 30 Campus Safety
  - 32 Gatehouse
  - 36 Templeton Student Center
- 46 McAfee
- 47 Facilities Services
- 47A Facilities Services Administration
  - Heating & Cooling Plant
  - 61 Huston Sports Complex
- 81A South Chapel
- 81B South Chapel Annex
  - 82 Corbett House
  - 83 Rogers Hall
  - 84 Seguoia
  - 85 Conference Center

### RESIDENCE HALLS

- 33 Akin
- 34 Stewart
- 35 Odell
- 40 West Hall
- Roberts Hall 41
- 42 East Hall
- 43 Howard
- 44 Platt
- 45 Copeland (A-F)
- 49 Hartzfeld (A-D)
- Forest (Alder, Juniper, Manzanita, Ponderosa, Spruce, Tamarack)



# Lewis & Clark College Campus



Visitor Parking Parking appealt (exciptions) Vintracinformer on Literativa 7 a. τ.⊸7 p.m. meekdaye. during the ponder to year.



Overflow Visitor Parking Visit via ratth pariente eary eark. 1914 (På 45 DOCT) MAS ILIA (165).



Construction Zone

Walkway

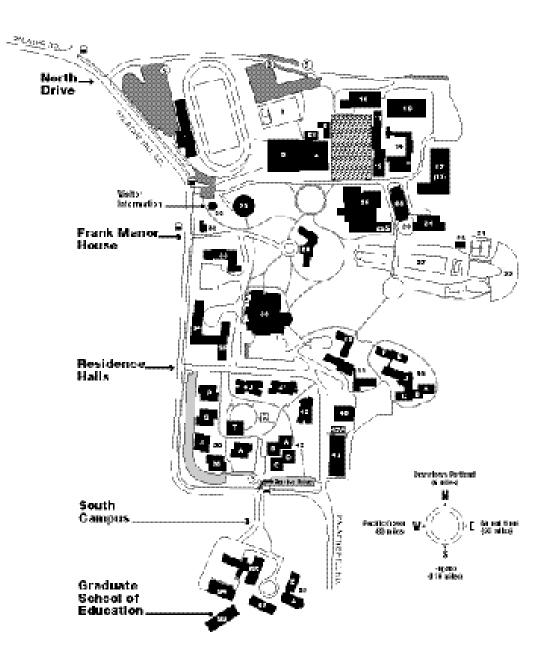
TriMet Bus Stop

L&C Shuttle Service

### LAW SCHOOL

- Legal Research Center L1
- L2A Boley Law Library
- L2B Wood Hall
  - L3 McCarty Classroom Complex
  - L4 Gantenbein

17 For alphabetical listing, see page 302.



#### **BUILDINGS AND FEATURES** LAW SCHOOL Albany Quadrangle 14 Boley Law Library L2A Alumni Circle 20 Gantenbein L4 Appalachia 9 Legal Research Center L1 Biology-Psychology 11 McCarty Classroom Complex L3 BoDine 12 Wood Hall L2B Campus Safety 30 DEPARTMENTS, OFFICES, AND Conference Center 85 DINING Corbett House 82 Academic English Studies Program 35 Estate Gardens 27 Admissions, College 28 Evans Music Center 10 Admissions, Law L1 Facilities Services 47 Alumni, Law L1 Facilities Services Administration 47A Alumni Relations 46 Fields Center for the Visual Arts 24 Annual Fund 46 Fir Acres Theatre 15 Art 24 Flanagan Chapel 29 Arts & Humanities Division 25 Frank Manor House 28 Biology 11 Ronna and Eric Hoffman Gallery of Bookstore, Law L1 Contemporary Art 26S Bookstore, Main Campus 36 Gatehouse 32 Business Office 28 Greenhouse 18 Campus Planning 28 Griswold Stadium 1 Campus Safety 30 Heating & Cooling Plant 51 Career Services, Law L4 Huston Sports Complex 61 Cashier & Credit 36 McAfee 46 Center for Service & Work 36 Miller Center for the Humanities 25 Chapel 29 Olin Center for Physics & Chemistry 17 Chemistry 17 College Outdoors 36, 84 Outdoor Pool & Dressing Pavilion 23 College Relations Vice President 46 Pamplin Sports Center 3 Communication 12 Rogers Hall 83 Computer Labs 26, 36 Rose Garden 22 Computer Showroom 26 Sequoia 84 Core Curriculum, College 25 South Chapel 81A Counseling Center 36 South Chapel Annex 81B Counseling Psychology 83 Templeton Student Center 36 Dean of the College 14 Tennis Courts 2, 21 Dean of the Graduate School 83 Watzek Library 26 Dean of the Law School L1 Zehntbauer Swimming Pavilion 4 Dean of Students, College 36 RESIDENCE HALLS Development 46 Development Research & Records 46 Akin 33 Dovecote Café 14 Copeland (A-F) 45 East Asian Studies 25 East Hall 42 Economics 14 Forest (Alder, Juniper, Manzanita, Education 83 Ponderosa, Spruce, Tamarack) 50 Hartzfeld (A-D) 49 Educational Administration 83 Educational Career & Licensing Howard 43 Services 83 Odell 35 English 25 Platt 44 Ethnic Student Services 36 Roberts Hall 41 Facilities Services 47, 47A Stewart 34 West Hall 40 Fields Dining Room 36

Food Service 36

Foreign Languages 25 Ronna and Eric Hoffman Gallery of Contemporary Art 26S Gender Studies 14 Graduate School Administrative Offices 83 Health Center 36 History 25 Human Resources 32 Information Desk 36 Information Technology 26 International Affairs 14 International Student Services 36 KLC Radio 36 Language Lab 25 Law School Offices L1 Legal Writing Center L2B Library, Law L2A Library, Main Campus 26 Maggie's Café 41 Mail Room 36 Mathematical & Natural Sciences Division 17 Mathematical Sciences 12 Math Skills Center 11 Media Services 26 Music 10 National Crime Victim Law Institute 81A Natural Science Shop 17 Northwest Writing Institute 83 Overseas & Off-Campus Programs 14 Pamplin Society 25 Philosophy 25 Physical Education & Athletics 3 Physics 17 Pioneer Log Newspaper 36 Political Science 14 President 28 Psychology 11 Public Affairs & Communications 46 Registrar, College 36 Registrar, Graduate 83 Registrar, Law L1 Religious Studies 25 Residence Life 36 School Counseling 83

Social Sciences Division 14 Sociology & Anthropology 12 Special Education: Deaf & Hard-of-Hearing 83 Special Projects, Graduate 83 Student Activities 36 Student Center 36 Student Development Center 36 Student Employment 36 Student Financial Services 36 Student Organizations, College 36 Student Organizations, Law L2B, L4 Summer Session 14 Switchboard, Law L1 Switchboard, Main Campus 36 Tamarack Lounge 50T Teacher Education 83 Theatre 15 Trail Room 36 Transportation & Parking 47 Visitor Information 30 Writing Center, College 26 Writing Studio, Graduate 83

Parking permits are required to park on campus during the fall and spring semesters, Monday through Friday from 7 a.m. to 7 p.m. Parking is free after 7 p.m. weekdays, as well as on weekends. During the summer (mid-May through August), permits are required only in law school staff spaces and in all south campus lots. Handicapped parking is distributed throughout campus lots. Visitor Information can provide help finding a handicapped space.

Lewis & Clark can also be reached via TriMet, bus line 39. For schedule information, visit www.trimet.org or phone 503-238-7433.

A Center for service and work 245 Academic advising 240 Chaplaincy 244 Academic calendar 10 Chemistry 56 Academic English studies 36 Chinese 112 Class size 292 Academic integrity policy 18 Class standing, definition 21 Academic grievance procedure 29 Academic offerings 293 Climate 292 Club sports 245, 296 Academic policies 18 Academic progress requirements for Cocurricular eligibility 21 financial aid 255 Cocurricular opportunities 244 College outdoors 244, 296 Academic services and resources 240 Academic standing 19 College profile 292 Academic warning 20 Communication 63 Accreditation 2 Computer science 71 Administrators 286 Computer science & mathematics 153 Admission 248 Computing and media resources 241 Advanced placement 22 Computing facilities 154, 295 Advanced standing 22 Corbett estate 273 Alumni 244, 292 Core courses 13, 71 American language program, Costs 252, 297 see English as a second language Counseling center 244 Americans With Disabilities Course descriptions, Act 2, 241 see department listings Anthropology 217 Course load 12, 24 Application for admission 249 Course numbering 24 Art 38 Course registration 24 Athletics 181, 245, 296 Creative arts requirement 16 Athletics facilities 182, 270, 295 Credit by examination 24 Awards 29, 261, 292 Cross-registration 24 Curriculum 35 Curriculum, summary 293 Baccalaureate degree requirements 12 D Biochemistry 47 Biology 48 Dance, see Theatre Buckley Amendment 26 Dean of the College 287 Dean of students 242, 286 Buildings, campus 267 Dean's list 29 C Deferred enrollment 251 Calendar, academic 10 Degree application deadlines 10, 26 Calendar, admission 250 Degree requirements 12 Campus 292 Departments, curriculum of 35 Campus buildings 267 Deposits 252 Campus housing requirement 250 Disability issues, Campus map 299 see Student support services Campus safety 242 Dismissal 21 Campus security statement 2 Double majors 32 Drama 227

Dramatic arts journal 246

E G East Asian studies 72 Gender issues magazine 247 Economics 77 Gender studies 126 Education 86 General education requirements 12 Employment 245 Geological science 129 Endowed lectureships 260 German 116 Endowed professorships 260 Grading system 27 Endowed scholarship funds 262 Grade point average 28 Grade reports 28 Engineering 89 Graduate School of English 91 Education 6, 24, 273 English as a second language 36, 294 Enrollment 294 Graduation requirements 12 Environmental studies 100 Grants, faculty 292 Grants, student financial Equal opportunity policy 2 assistance 259 Ethnic student services 243 Expenses 252, 297 Greek 118 Facilities 267, 295 Health Center 243 Health insurance 243, 252 (see also department listings) Facts about Lewis & Clark 292 Hispanic studies 119 Faculty emeriti 284 History 130 Faculty members 276 History of the College 6 Home-schooled applicants 248 (see also department listings) Faculty recognition 292 Honorary societies 29 Faculty-student ratio 292 Honors 29, 261, 292 Family Educational Rights I and Privacy Act 27 Independent study 25 Federal funding 258 (see also department listings) Information literacy 18 Film and video production 246 Institute for the Study of American Final examinations 26 Language and Culture, Financial aid 254, 297 see Academic English studies Financial resources 260, 292 Intercollegiate athletics 245, 296 Fir Acres estate 6, 267 International affairs 143 First-year class profile 294 International affairs journal 143, 246 First-year course 12, 71 International baccalaureate 22 Food service 296 International education, Foreign language journal 247 see Overseas study programs Foreign languages and literatures 107 International student admission 251 Foreign languages requirement 17 International student services 243 Forensics 64, 247 International students, language Franciscan retreat center 273 program, see English as a second French 114 language International studies requirement 14 Internships, see department listings Intramural sports 245

Inventing America course 12, 71

Japanese 122 Journals, student-run 246, 247 L Latin American studies 150 Law School 6, 201, 272 Leave of absence 30 Library 241, 269, 295 Linguistics 112 Literary review 94, 246 Loans 258, 259 Location 292

#### M

Majors 31, 293 (see also department listings) Map of campus 299 Math skills center 241 Mathematical sciences 152 Meal plans 253, 297 Media, student 246, 296 Medical assistance 243 Merit-based financial assistance 256 Minors 33, 293 (see also department listings) Mission of the College 7 Modification of requirements 34 Music 160, 247

#### N

National student honors 292 Need-based aid 257 Newspaper, student 64, 246 Nondiscrimination policy 2

Off-campus study programs 174, 294 Orientation dates 10 Overload policy 24 Overseas study programs 174, 294

#### P

Pamplin Society of Fellows 29, 260, 261 Parents Preview dates 10 Payment schedule 253 Phi Beta Kappa 30 Philosophy 177 Physical education and athletics 181 Physical education/activity requirement 18 Physics 184 Policies and procedures 18 Political economy 190 Political science 191 Portfolio path to admission 249 Practica/independent study 25 (see also department listings) Pre-law 201 Pre-med 202 Presbyterian Church 6, 244 President 286 Probation 20 Professors emeriti 284 Programs of study 35 Provost 286 Psychology 202

Quantitative reasoning requirement 15

#### R

Radio station 64, 246 Readmission 31 Recognition, faculty 292 Recognition, student 292 Recreational sports 245 Refund policies 253, 256 Registration 24 Registration changes 26 Religious life 244, 296 Religious studies 210 Repeated courses 25

Requirements for graduation 12 Residence halls 271 Residence life office 242 Residency requirement, academic 12 Residency requirement, housing 242, 250, 296 Room and board 252, 297 Russian 124

 $\mathbf{S}$ Satisfactory academic progress requirements for financial aid 255 Scholarships 256, 262 Scholarships, external 259 Science, see Biology, Chemistry, Computer science, Engineering, Geological science, Physics Scientific and quantitative reasoning requirement 15 Service and work, center for 245 Sociology and anthropology 217 Spanish, see Hispanic studies Sports 245, 296 Standard academic progress 21 Student activities office 243 Student center 272 Student council 246 Student employment 245 Student-designed majors 32 Student financial services 253 Student government 246 Student life 242, 296 Student media 246 Student services, resources, and programs 242 Student support services 240 Students, geographic distribution of 294 Summary of charges 252 Suspension 20

#### T

Teacher education 86 Theatre 227, 247 Transfer admission 249 Transfer advising 240 Transfer core requirements 13 Transfer credit policies 249 Transfer requirement, housing 250 Transfer requirements, academic 249 Trustees 288 Tuition and fees 252, 297

Varsity athletics 245, 296 Veterans 34 Video production 246 Visiting student program 251 Volunteer opportunities 245

Withdrawal from a course 28 Withdrawal from the College 21, 31, 253, 256 Women's studies, see Gender studies Work-study 259 Writing center 241

#### Y

Yearbook 247