

- CM LIT 131. Film History I (1925-1965).** *Mr. Morrison.* This course surveys the history of cinema as art and mass medium, from the introduction of sound to the rise of the “New Hollywood.” Topics such as cinematic response to World War II, the decline of the studio system and “new waves” of European filmmaking are studied in social, cultural and aesthetic perspectives. Fall 2009. [MH]
- CM LIT 132. Film History II (1965-Present).** *Mr. Morrison.* This course surveys the history of cinema as art and mass medium, from 1965 to the present. Topics such as the rise of independent filmmaking in America, the conglomeration of the studios and European resistance to Hollywood’s domination on the world market are considered in social, cultural and aesthetic terms. Every other year. [MH]
- CM LIT 133. Film and Literature.** *Mr. Morrison.* To be announced. [T]
- CM LIT 134. Special Topics in Film.** *Mr. Morrison.* Designation based upon topic. To be announced.
- CM LIT 136. American Film Genres.** *Mr. Morrison.* To be announced. [T]
- CM LIT 138. Film and Mass Culture.** *Mr. Morrison.* Examines film as art and as medium in the context of the rise of 20th century “mass culture.” We look at such topics as the role of film in producing the ideas of “mass culture;” representation of the “masses;” film as a means to standardize culture and as a mode of resistance to it; and more. Fall 2009. [T]
- HM LIT 173. Exile in Cinema.** *Ms. Balseiro.* To be announced. [T]

MOLECULAR BIOLOGY PROGRAM

Associate Professor Malkiat Johal, coordinator

Steering Committee: E.J. Crane, Daniel Martínez, Len Seligman

Professors Hoopes, O’Leary, Selassie, Telzer

Associate Professors Cheney, Crane, Johal, Martínez, Parfitt, Seligman

Assistant Professors Cavalcanti, Sazinsky

Assistant Professor and Director Negritto

HHMI Postdoctoral Fellow Lopez

Molecular biology is the study of biological macromolecules and the means by which they mediate the chemical processes of cells, regulate gene expression and define cell structure and function. This interdisciplinary major is supported by the departments of biology and chemistry and has been supported by grants from the Howard Hughes Medical Institute.

Program faculty believe that the best way for students to learn molecular biology is to engage in investigative research. Students in the program have many opportunities to do so, from course laboratories to a required full-year experimental thesis project. It is also strongly recommended that molecular biology majors spend at least one summer working in a laboratory and program faculty try to provide a summer opportunity for all majors. The senior thesis work is presented as a written thesis and a final oral presentation in a molecular biology symposium. In many cases, original research undertaken by our students has led to publications in scientific journals. A minor in molecular biology is not offered.

Requirements for the Major in Molecular Biology

All courses for the Molecular Biology Major must be taken for a letter grade.

1. Introductory courses: BIOL 40, 41C; CHEM 1A, B or 51; 110A,B; PHYS 51A,B
2. MATH 30, 31. 36 is strongly recommended. Students with AP Calculus AB credit must complete 31; students with AP Calculus BC credit must complete 36.

3. Upper-division courses: BIOL 163, CHEM 115 (or HM CHEM 182 and 184 taken together), CHEM 158B, Molecular Biology (MOBI) 188 and 191A,B
4. Either BIOL 41E or one full-credit biology, chemistry, molecular biology or neuroscience elective course from the list below. Two approved half-credit elective courses may also be used to satisfy this requirement.

Students with an interest in molecular approaches to the study of ecology and evolution should take BIOL 41E and consider additional elective courses, such as BIOL 109. Elective courses, other than those listed below, in biology, chemistry, physics or mathematics, may be approved by the coordinator as an appropriate elective, depending upon the interests of the student. Students with an interest in molecular neuroscience should take NEUR 101 and consider additional elective courses, such as BIOL 178 and NEUR 110.

Molecular biology majors may not enroll in any required course away from Pomona College (except HM CHEM 182 and 184 when taken together) without the written permission of the coordinator, who must pre-approve a non-Pomona course as equivalent to a Pomona course.

Molecular biology majors must complete MOBI 188 in the spring of their junior year and BIOL 163 and CHEM 115 by the end of the junior year. Students who plan to study abroad and may not meet this requirement should consult the program coordinator. With prior written permission from the program coordinator, one course credit may be obtained for appropriate upper-division molecular biology coursework undertaken in a study abroad program.

Students who will be applying to graduate or professional schools or will be seeking employment in applied or basic research laboratories are strongly encouraged to take additional elective courses and to participate in a summer research program.

Courses

Molecular Biology (MOBI) courses satisfy Area 4 of the Breadth of Study Requirements.

- 185. Biochemistry and Molecular Biology of DNA Repair.** *Ms. Negritto.* DNA repair mechanisms from eukaryotic cells are analyzed in detail and at the molecular level. Emphasis is given to how mutations that impair DNA repair pathways can result in genomic instability, one of the main forces driving the onset and progression of cancer. Current literature is analyzed in detail and molecular biology methods, including microarray technology, are covered in depth. Prerequisites: BIOL 40, CHEM 110A/B. Fall 2009; offered alternate years.
- 187. Human Diseases with Defective Genome Maintenance Mechanisms.** *Ms. Negritto.* This course will focus on human syndromes and hereditary diseases linked to defective processing of damaged DNA or other aspects of DNA metabolism. The molecular and biochemical defects associated with these diseases will be analyzed in detail in a seminar style course. Prerequisites: BIOL 40, CHEM 110B. Fall 2010; offered alternate years.
- 188. Molecular Biology Laboratory.** *Ms. Negritto.* An advanced junior course of laboratory investigation in molecular biology. Students undertake group and independent research projects and select their senior thesis projects. Co-/Prerequisites: CHEM 115 and BIOL 163. Each spring.
- 191A,B. Senior Thesis.** *Ms. Negritto.* Completion of a laboratory research project. Suitable laboratory projects include continuation of investigations begun in summer research or Molecular Biology 199. Half-course. Each semester.
- 99/199. Reading and Research.** *Staff.* Students undertake research projects of their own design or in collaboration with faculty. Prerequisite: permission of instructor. 99, lower-level; 199, advanced work. Course or half-course. May be repeated. Each semester. (Summer Reading and Research taken as 98/198.)

Elective Courses Taught by Faculty of the Program

Biology (BIOL)

- 109. Molecular Evolution with Laboratory: The Tree of Life
- 164. Genetic Regulation in Eukaryotes with Laboratory
- 165. Molecular Genetics of Cancer
- 167. Microbial Genetics with Laboratory
- 169. Developmental Biology with Laboratory
- 170. Drosophila Genomics with Laboratory
- 173. Genomics and Bioinformatics with Laboratory
- 178. Neurobiology with Laboratory
- 189A. Advanced Topics in Molecular Biology

Chemistry (CHEM)

- 174. Bio-Organic Chemistry
- 175. Introduction to Medicinal Chemistry
- 180. Advanced Biochemistry
- 185. Soft Nanomaterials
- 187. Proteins and Enzymes

Neuroscience (NEUR)

- 103. Neuropharmacology

MUSIC DEPARTMENT

Professors Tom Flaherty (Spring 2010), Genevieve Lee, department chairs

Professor Emeritus Bailey

Professor and College Organist Peterson

Professors Di Grazia, Flaherty, Hagedorn, Lee², Lytle

Director of Music Programming and Facilities Professor Beeks

Associate Professors Cramer¹, Lindholm

Assistant Professor Rockwell

Visiting Assistant Professor Byl

Lecturers Addington, Wenten

Lecturer and Jazz Ensemble Director Bradford

Performance Music Faculty:

Voice: Ms. Lytle, Mr. Geiger, Ms. Kleinecke, Ms. Price. **Organ:** Mr. Peterson. **Piano:** Ms. G. Lee, Ms. Blankenburg, Ms. M. Kohn, Mr. Young, Ms. Zoolalian. **Fortepiano:** Ms. de Silva (SC).

Harp: Ms. de Silva (SC). **Violin:** Mr. Pelev. **Viola:** Ms. Fogg. **Violoncello:** Mr. Lebow.

String Bass: Mr. Tinsley. **Flute:** Ms. Rudich. **Oboe:** Mr. Castillo. **Clarinet:** Mr. Boyer. **Basoon:** Ms. Beck. **Saxophone:** Mr. Foerch. **French Horn:** Mr. Klintworth. **Trumpet:** Mr.

Burkhardt. **Trombone:** Mr. Keen. **Tuba and Euphonium:** Mr. Klein. **Guitar:** Mr. Sanders,

Mr. Benzant-Feldra, Mr. Yoshida. **Timpani and Percussion:** Ms. Dimond. **Harp:** Ms. Dropkin.

¹On leave Fall 2009

²On leave Spring 2010