

Assistant Professor of Biology, Available August 2013

Teaching and Departmental Responsibilities

We seek a broadly trained Mathematical and/or Computational Biologist committed to combining teaching and research at a small liberal arts college; post-doctoral training and research experience are desired and prior teaching experience at the undergraduate level is a plus. The successful candidate will join a department of ten tenured and tenure-track faculty, one laboratory supervisor, and a laboratory coordinator providing a broad biological education to undergraduates. The Department supports interdisciplinary programs including Neuroscience, Biochemistry, Environmental Science, and Environmental Studies majors, and minors in Health & Life Science, and Biotechnology/Bioengineering. We anticipate that this person could also be able to contribute interdisciplinary course offerings to support the Mathematics and/or Computer Science programs perhaps through Lafayette's interdepartmental memorandum-of-understanding process.

The candidate will have a 3/2 teaching load each year including an intermediate level course, and an advanced seminar course in the applicant's field of expertise, and possibly a second interdisciplinary course. In addition, the successful candidate will share in the teaching of A Modeling-Based Approach to Biology (BIOL/CM 106) and participate in the College's Common Course of Study as well as supervise students enrolled in Honors Thesis or Independent Research. In the second and subsequent years, the incumbent will also assume additional departmental responsibilities such as advising and college faculty committee duties. There are also opportunities for overload teaching during interim session. Further information on the biology curriculum and the College is available on the Biology Department and Lafayette College web pages.

In addition, TAs provide supplemental care for animals, plants and other living material. During the 2011-2012 academic year, the Department employed over 60 students. We consider the undergraduate laboratory teaching assistant program to be a basic element in the Biology Department's educational experience.

Research

The keys to development of a successful research program in our department are the involvement of undergraduates and the judicious use of available facilities and equipment. Lafayette offers no graduate courses and the teaching of undergraduates, with all that implies, is our primary concern. This approach is reflected in an active Independent Research and Honors program involving approximately 50% of our majors in at least two semesters of faculty-sponsored research. Each faculty member integrates advanced students into his or her research program and expects to share equipment, facilities and supplies with students and colleagues. Usually students select research mentors as a result of their contact with them in an intermediate-level laboratory course in which they have learned the basic techniques used in research. In close collaboration with faculty mentors, students design and carry out experiments, often presenting their

results at local and national scientific conferences. We expect the incumbent to develop a research program that culminates in the publication of student-faculty coauthored papers in refereed publications. Further information on our research program is included in the Biology Department web page.

Lafayette College provides hardware and software computer support, including information technology support specialists. Three electronic classrooms enabling multi-media presentations and internet access are located within the Biology building. A 14-computer laboratory is available for teaching classes and laboratories. The College also provides the Moodle classroom software package for creating class websites. The Department of Computer Science supports several research clusters, a motivated group of students interested in software development, and a strong relationship with the College's Information Technology Services. The Information Technology staff have constructed a world-class networking infrastructure and made strides at integrating new technologies, such as Voice over IP and Shibboleth identity solutions, to facilitate collaborative efforts both in and outside of the college. The ITS have also begun to develop relationships with computational hardware consortiums to allow college faculty access to off-campus high performance computing facilities.

The Biology Department is well equipped for research in a number of areas. We have warm and cold animal suites, darkrooms, a constant temperature and humidity chamber, and research grade microscopes with digital data acquisition including a Nikon Eclipse E800 confocal microscope and several inverted fluorescence, phase contrast, and Nomarski/DIC models. We have a cryostat as well as regular and ultra microtomes. We also support our research program with refrigerated high-speed and ultracentrifuges (Beckman L8-M and J2-M1), laminar flow hoods, DNA isolation and sequencing equipment, a digital gel documentation camera system, PCR thermal cyclers, microplate reader, low-temperature freezers, liquid scintillation counter, and research grade spectrophotometers. Other analytical equipment (GC/MS, atomic absorption spectrometer, HPLC, NMR, Bio-Rad protein purification apparatus, X-ray diffraction) is available in the Departments of Chemistry, Physics, Geology and Chemical Engineering.

Further support for research and teaching is available through a departmental secretary, a skilled departmental technician, an animal care technician, and the Skillman Library with its journal subscriptions, interlibrary loan program, and its technical service librarians. In addition, the Lafayette EXCEL program is an option that provides students with stipends rather than academic credit for research collaboration with faculty member during the school year and summer and interim sessions.

The Department considers the teaching of research students to be a significant part of its mission. Thus, start-up funds for research will be provided to the successful applicant; limited research support is also budgeted from Departmental funds and allocated to each student research project. Faculty also can apply for competitive Summer Research Fellowships from the College Academic Research Committee. Although the College will honor reasonable requests for research needs, particularly for new faculty, faculty members are encouraged to seek outside support for their research programs.

Search Committee:

Associate Professor Robert Kurt, Department Head, Biology

Associate Professor Elaine Reynolds, Biology

Professor Rob Root, Mathematics

Associated Professor Jeffrey Pfaffmann, Computer Science

Lafayette College is committed to creating a diverse community: one that is inclusive and responsive, and is supportive of each and all of its faculty, students, and staff. All members of the College community share a responsibility for creating, maintaining, and developing a learning environment in which difference is valued, equity is sought, and inclusiveness is practiced. Lafayette College is an equal opportunity employer and encourages applications from women and minorities.