

Southwestern College

Biology Research/Education Associate, Activity Grants

Research Associates—Description

The Biology Research Associate and Education Associate Activity Grants are designed for students who want to become more engaged in the academic life of the college, either through research or educational outreach.

Research Associates will participate in a research project either on campus or at the Moore Biological Field Station. The projects may be field- or laboratory-oriented, or a combination. At the beginning of the first year of the appointment, the associate will consult with the biology faculty to identify an on-going project of interest. At that time the associate will be assigned a faculty mentor. In subsequent years, the associate may either continue to work on the same or a similar project, or select a different project, again through consultation. Project choice will be driven by the interests of the associate, the training and interests of the biology faculty, and existing equipment/facilities.

Generally, the appointments will follow a two-tiered approach. For the first two years, the associate will be working as an assistant PI (principal investigator) with a faculty member or a student PI. In subsequent years the associate will take on the role of lead PI of a continuing research project or a new project of their design with consultation of the biology faculty.

The expectations are as follows: 1) a time commitment of 4-6 hours per week; 2) regular consultations with the faculty mentor; and 3) an annual progress report or presentation of the findings. Associates will have the option of enrolling in either Problems in Biology or Readings in Biology once per year (1 credit, S/U grading). As seniors, associates are encouraged to enroll in Senior Research (3 credits, graded). Students accepting the Biology Research Activity Grant may participate in other activities (e.g. band, cross-country, theater, etc.). However, it is our advice that students be aware of the time commitment and limit their participation in multiple activities.

Potential Projects:

A diverse array of scientific projects is envisioned. These projects may be individual or group, short-term or long-term (involving >1 generation of SC students), field-based or laboratory-based, experimental or descriptive. It is our desire that a number of the projects utilize the Moore field station, but that is not required.

Specific research topics depend largely on the interests of the students and the SC faculty. Interest areas of the SC faculty involved with the program include ecology, freshwater biology, physiology, microbiology, biochemistry, animal behavior, developmental biology and cellular/molecular biology. Two of the more recent projects conducted by SC students include a study of bluegill impact on zooplankton assemblages conducted at the Moore Biological Field Station; and a study of an enzyme system associated with over-wintering amphibians (superoxide dismutase) collected from the field station.

In 2011-12 we have a couple of descriptive inventories being planned for the Moore Field Station (trees and small mammals), and we are considering organizing a Bioblitz for the fall or spring to gain a more detailed appreciation of the flora and fauna accessible to us.

For more information concerning the Biology activity grants, contact:
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