Make It Happen! Innovation Grants

PROJECT DATA

Note: This form is for APPROVED GRANTS only! A Project Data form is a requirement for the grants. The information provided will be posted on the Learning College website.

Directions: Fill out the form and email it to anne.holte@montgomerycollege.edu.

Project Name: Enhancing learning through biological research

Project Director: Dr. Cyrus MacFoy

Project Starting and Ending Date: January, 2007 – May, 2007

Brief description of the project:

All students with a genuine interest in biology and health science should be given the opportunity as soon as possible in their undergraduate career to do research, since the best way to learn biology is by doing biology, and independent research has been shown to provide ideal learning experiences. In this project students in my three classes (BIO205 and BIO101 respectively), and any others registered in my HP258YA class, interested in careers in biology and health sciences etc. will be given the opportunity of an introductory training in laboratory and/or field research by performing an original research project under my supervision. The program will provide practical training in academic research and scientific experimentation and the students will learn about scientific reasoning, laboratory methods, and scientific communication. Thus the program will be used to teach students science by involvement in biological research on a mutually agreed, suitable biological topic. This will inevitably contribute to improving retention of students who drop biology altogether or otherwise transfer from MC after one year. It will improve their critical thinking skills, self-confidence and independence as active learners.

State fundamental need or concern addressed in this project:

The need to expose and hence prepare biology majors, premeds and health science students etc. in research methodology before transferring to 4-year and other institutions, so that they will be equally competitive with those who start of at these schools, or develop the requisite marketable skills for entering the job market.

List the project's core goals and/or objectives.

To produce trained students in basic biological methods and scientific communication skills. Those students who meet the prerequisite will obtain 3 credits for the research they undertake by registering in HP258YA, and will present their work in a seminar session and/or poster session at MC at the end of the semester, thereby learning from each other. They will also submit their work for presentation at one of the undergraduate conferences, and the best ones encouraged to participate at a National undergraduate competition. In addition, shorter projects will be undertaken by those who do not require credit for this exercise as an extra credit assignment in their biology or health science program.

Who will benefit from this project?

All my Bio101 and Bio205 students will benefit from this project. In addition Biology majors, Premeds and others including any registered in my HP258YA research course who have shown through their coursework, a strong interest in biological sciences.