



SOCIETY OF PHYSICS STUDENTS

An organization of the American Institute of Physics

Future Faces of Physics Award Proposal

Project Proposal Title	Women In Physics
Name of School	University at Buffalo
SPS Chapter Number	745
Total Amount Requested	\$500.00

Abstract

The University at Buffalo SPS Chapter's Women in Physics program is a targeted outreach program intended to increase the number of female physics majors at UB. The program consists of a semi-annual physics lecture by a female physicist as well as a mentoring program designed to attract and retain new physics majors. Currently, less than 20% of physics majors at UB are women. This lack of gender diversity directly inhibits scientific progress and should be addressed with targeted investments in programs like this one.

Proposal Statement

Overview of Proposed Project/Activity/Event

The Women in Physics program will consist of an hour long lecture given by a female professor in the UB Physics department during the spring semester. The topic of the lecture will be chosen by the professor but will center on her specific field of research. The lecture will serve as the kickoff event for the broader peer to peer mentoring program to be initiated at this event. In the time immediately following the lecture, young prospective physics majors will be asked to participate in a mentor mentee relationship. Their emails will be recorded and they will be invited to the follow up Mentoring Kickoff meeting the next week.

The primary goal of the lecture is to promote the UB Physics department to undecided first and second year female students on a science track. The primary goal of the mentoring component of the program is to increase the number female physics majors and ensure retention until graduation.

The target audience of the lecture will be first and second year female students currently taking introductory physics, chemistry, and mathematics courses.

Our SPS chapter is lucky to have three female leaders. However, the broader department has a significant gender gap in enrollment. This SPS administration is uniquely positioned to promote this specific objective. We are also lucky to have several female physicists currently working on cutting edge research within the department. This provides our chapter with a valuable marketing resource, that if properly cultivated, can lead directly to an influx in female physics majors.

How Proposed Activity Promotes Physics Across Cultures

Currently, women comprise less than 20% of declared physics majors at UB. This statistic is important because it implies a continuation of the current underrepresentation of women in physics' professions. This lack of gender diversity directly inhibits scientific progress and should be a major component of the UB SPS chapter's outreach programs.

The Women in Physics program is designed to provide young women with a clear understanding of the wide range of possibilities an education in physics offers. The lecture portion of the program will provide first and second year students with a better understanding of what professional physicists actually do. The lecture will also serve as an opportunity for SPS to attract additional members through the mentoring program. While the lecture and mentoring program will be open to all students, all marketing efforts will focus on female participants.

This program has the potential to become an annual, financially self-sufficient entity with the capacity to drive a cultural shift in the UB physics department. The funding requested by this proposal will provide the resources needed to ignite this process. The long term goal of a 1 to 1 gender ratio in physics professions begins right here.

Plan for Carrying Out Proposed Project/Activity/Event

The individual primarily responsible for the execution of this program will be the Women in Physics Program Director who will be appointed by the UB SPS Chapter president. This individual will select a team of third and fourth year student mentors who will assist the director in administrating the program. Upon establishment of the mentor relationships and meeting schedules, the director will provide updates on the program to the SPS administration.

Marketing efforts will focus on introductory courses such as Chemistry 101-102 and Physics 1-2. The targeted audience will be female students in their first or second year of study who have an interest in science, engineering, or mathematics. Posters, flyers, targeted email blasts, in class announcements, and school publications will be used to promote the lecture and subsequent mentoring opportunity. Given these measures, our target audience size will be approximately 500 first and second year female students.

As previously mentioned, the program director will select a team of third and fourth year mentors who will aid in the administration of program in addition to their periodic mentoring responsibilities. These mentors will be selected from a pool of existing and prospective SPS members. Total SPS member involvement should be between 7-10.

Project/Activity/Event Timeline

February 8 th	Initial SPS meeting of Spring semester. Appointment of Program Director and selection of mentor team
February 15 th	Assignment of team member responsibilities and discussion on lecture professor and topic Plan fundraising effort for April
February 22 nd	Marketing effort begins with lecture promotion posters and flyers Room reservation made with UB Review of professor's technology requirements
March 1 st	Marketing effort continues with lecture promotion email and publication Development of mentoring schedule
March 8 th	Marketing effort culminates with in class announcements by SPS members
March 20 th	Review of lecture day procedures Place order for refreshments
March 22 nd	*Tentative* Day of Lecture Record attendee data as defined in Evaluation plan Students sign up for mentoring
March 29 th	First mentoring meeting (group with refreshments) Individual mentor mentee assignments made Record attendee data as defined in Evaluation plan Students define a weekly meeting schedule that works for them
April	Fundraising effort to fund fall semester operations

May 3 rd	Final mentoring meeting (group with refreshments) Closing meeting with invitation to return to SPS and the Women in Physics Program in the Fall semester. Take program completion survey as defined in Evaluation plan
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Activity Evaluation Plan

During the lecture, the program director will conduct a head count of non-physics majors to establish the effectiveness of marketing efforts. Of these non-physics majors, the gender ratio will also be recorded. Upon completion of the lecture, the number of individuals who show an interest in an SPS membership or a mentor will be recorded along with the gender ratio. Finally, the total number of male and female students who attend the initial mentoring meeting and are assigned a mentor will be recorded.

Upon completion of the mentoring program (end of spring semester), a survey will be issued to participants in the program. The survey will be anonymous and focus on suggested ways to improve the program for the fall semester of 2018.

Budget Justification

The proposed budget items include printing costs associated with marketing activities. These dollars are essential to promoting attendance to the lecture. Five large format color posters will be posted strategically in the science departments. 500 4x5 fliers will be placed strategically to ensure exposure to our target audience. Discounted printing services are available to the UB SPS chapter through the University's printing department.

The food items include refreshments for the lecture, the mentoring kickoff, and the closing meeting. These gatherings are important milestones in the early development of this program and refreshments will promote attendance as well convey their significance to SPS. Attendance figures and costs per person represent conservative estimates. Additional SPS meetings will be held during this time frame, but refreshments will be funded by the UB physics department.

Finally, \$75.00 is being requests to be used as seed money for a fundraising effort in April. The purpose of this effort will be to reach the \$500.00 target necessary to fund the Women in Physics Program for the following semester. This assignment of funds is intended to allow Women in Physics to evolve into a self-sustaining program.