

New York State Section - American Physical Society
Physics Outreach Grants
Call for Proposals
Next Deadline: November 1, 2019 for Fall 2019
Awards Description and Instructions

A. Purpose

The program is funded by the NYSS-APS to provide support for projects intended to bring physics related learning experiences to the general public, and in particular to K through 12 students. Projects that will potentially lead to sustained programming are particularly encouraged. Special consideration will be given to proposals that increase the participation and achievement of underrepresented groups in the sciences, mathematics and engineering.

B. Eligibility

Proposals will be accepted from individuals associated with non-profit institutions (including universities, colleges, community colleges, secondary schools, museums and other non-profits with educational missions) who intend to carry out educational activities within the area served by the NYSS-APS. The targeted audience must be located in New York or contiguous states/provinces. Undergraduate and graduate students are particularly encouraged to submit proposals. One of the proposers must have a current or prior affiliation with an institution of higher education, a New York State-based industrial R&D center, or not-for-profit educational organization. If a previous outreach was granted to an institution or organization, all reports and presentations must be fully completed before a new proposal will be accepted.

C. Size of Awards

Proposers may request up to \$2,000, smaller grants are encouraged. The number of grants funded and budget for each grant will depend upon the merit of proposals and availability of funds in the NY State Section budget. An additional \$200 may be granted to each individual/group for travel to present their results at a meeting of the Section (see reporting requirements below).

D. Reporting requirements.

For projects completed within one year:

- (1) A short written final report including outcomes and how others may use the experience or results of the project (suggest 1-2 pages, also a few photos). This report will be posted on the Outreach web-site. Please indicate whether you are willing to have contact information included with the narrative. The submission of digital photographs of outreach activities for the web-site is highly encouraged as is electronic submission of the final report.
- (2) A presentation (oral or poster) at the respective Fall or Spring NYSS symposium one year after the grant has been awarded.
- (3) A summary financial report (spreadsheet or narrative).
- (4) If the project goes beyond one year, an interim progress report (one page) after one year and the above ((1)-(3)) within two years.
- (5) No further outreach grants will be awarded until both the report and presentation have been completed.

E. Application process

Simply download this word document and answer the questions on pages 3 through 5 of this form.

Please email the completed document to

Chair of the Outreach Committee:

Dr. Erica Simoson (Erica.Simoson@fredonia.edu)

Department of Physics

280 Central Ave

Fredonia, NY 14063

at least one week before the corresponding meeting of the New York State Section. The deadline for Fall 2019 is thus November 1, 2019. Questions should be addressed electronically to Dr. Erica Simoson.

A list of recent projects follows the application.

Summary. Please summarize your project, target audience, and goals, as well as the rationale behind your project.

Please answer the following questions.

1. What activities will the grant support?
2. What is the target audience (grade level, size, etc.)?
3. How will the planned activities will increase the awareness of physics topics among the general population and/or facilitate/encourage the study of physics among K-12 students?
4. Who will plan and carry out the activities?
5. Provide a brief timeline.
6. Please add any additional information which will help us understand what you are going to do and why you think it is likely to succeed.

Please provide an itemized budget in the following format (you may attach a spreadsheet if desired). Additional support is encouraged but not required.

PROPOSED BUDGET:

	NYSSAPS	Match
a) ITEMIZED EQUIPMENT		
b) MATERIALS AND SUPPLIES		
c) LOCAL TRAVEL		
d) MISCELLANEOUS		
TOTAL BUDGET		
LESS MATCHING FUNDS		
REQUESTED FROM NYSSAPS		

SOURCE OF ADDITIONAL SUPPORT:

Recent outreach grants

November 2017

Title: Equal access and rising girls
Institution: Long Island Science Center (LISC)
Amount requested: \$ 2000 (+ \$ 200 for travel expenses for presentation)
Project Director: Mary Cunningham

“NYSSAPS support will greatly support our efforts to develop and deliver three interactive and interrelated physics educational programs to reach 270 4th grade students in a 76% impoverished student population. Presently, 4th grade is the time when most girls decide if they are good at or like STEM subjects, hence it is critical to inspire their interest, now. Additionally, waiting until middle school to inspire interest sets students on path of lagging severely behind. The programs are force, motion and friction, electricity and magnetism, and applied physics. These three programs will also be designed to give students the opportunity to investigate, test, predict, draw conclusions and develop critical 21st century skills of problem-solving, collaboration, communication, critical thinking and creativity. We firmly believe that if students have access to these programs they will enjoy and value physics, the discovery process, and apply their skills to future learning.”

Title: Nanoscience lab for outreach
Institution: St. John's University
Amount requested: \$ 1600 (+ \$ 200 for travel expenses for presentation)
Project Director: Gen Long

“This grant will support from a nanoscience lab tour located at Department of Physics, St. John's University. The nanoscience lab tour will include activities such as a short lecture/workshop on nanoscience, simple solar cell fabrication, SEM imaging, absorption spectra measurement, and solar cell toolkit assembly. The target audience would be K-12 teachers and students from local area (Queens, Brooklyn, Long Island, etc.) The expected group size would be around 20 participants.”

April 2017

Title: Microclimates and Toxic/Flammable Chemical Drift
Institution: SUNY Plattsburgh
Amount requested: \$ 1,713.42
Project Director: Michael Walters

“This pilot study will investigate the localized climate surrounding the railroad tracks that traverse Plattsburgh, NY. Sensor boxes will be placed along the train tracks and report back their data via text messaging. The study will focus on the specific conditions (terrain and weather) where the railroad tracks pass through downtown Plattsburgh and develop a detailed model for possible chemical spills. The models can then be used by urban planners to plan for mitigation of for what might happen if a spill or train derailment were to happen.

...

Undergraduate students will build and deploy a set of small, low power, inexpensive sensors along the right-of-way in the yellow region under the supervision of Michael Walters and Kevin McCullen.

Attention needs to be paid to the quality of measurement to prevent systematic offset biases from the official and semi-official measurements at the known monitoring sites.”

September 2015

Title: Bringing Physics to Harlem’s Underprivileged Youth
Institution: CCNY
Amount requested: \$ 2,000
Project Director: Veeshan Narinesingh

“This Outreach Grant Proposal aims to obtain funding for building cutting edge Physics demonstrations to perform for youth organizations within the vicinity of The City College of New York (CCNY). The neglect of physics in school curricula coupled with a lack of funding has left many students unexposed to the discipline. Outreach projects by the undergraduate and graduate Physics Clubs will integrate modern technology to demonstrate and explain various physical phenomena to underprivileged youth in one of the United States’ most infamously impoverished neighborhoods.”

April 2015

Title: Oneonta Sparking New Attitudes in Physics (O-SNAP!)
Institution: SUNY Oneonta
Amount approved: \$ 1,943 + \$ 200 for travel to Spring 2016 NYSSAPS Meeting
Project Directors: Kimmy Cushman and Sunil Labroo

“We request \$2143 to support outreach activities by a team of physics and engineering students at SUNY Oneonta. A team will visit middle schools across Upstate New York. The project is designed to spark an interest in physics and engineering fields, especially among female and minority students. The “make and take” activities from our program are a powerful way to spark that interest because the students will show them to their parents, their friends etc. Moreover, having an all female team is a proven role model approach.”

The team, consisting of five undergraduates, Bridget Boland, Erica Corbin, Bridget Chartrand, Kimmy Kushman and Lyteshia Price, was awarded second place (tie) in that Undergraduate Physics Poster Competition in September 2015. Professor Sunil Labroo served as mentor for the Oneonta team.