

PRINCETON CENTER FOR COMPLEX MATERIALS

MISSION: PCCM Education supports the broader impact efforts of Princeton Center for Complex Materials (PCCM)--a NSF-funded Materials Research Science and Engineering Center (MRSEC) around the nation.

We are committed to the belief that every citizen--regardless of socioeconomic backgrounds--needs to be scientifically literate to effectively assess social issues and make informed decisions that will affect our world.

VISION: By incorporating MRSEC scientists and their cutting edge research in every level of the education programs, we expose teachers and students to the latest advances in Materials Science while promoting diversity in the field.

In collaboration with various stakeholders in the surrounding communities and other informal education partners (e.g., museums, libraries, etc.), PCCM Education provides a bridge between the MRSEC scientists and the public. We work with the scientists to ensure success. These scientists mentor underrepresented middle- and high-school students (via PUMA) and undergraduates; they lead public lectures and tabletop demonstrations; they encourage K-12 teachers to motivate their students to pursue STEM careers.



PUMA Middle School



PUMA High School

DIVERSITY: We constantly strive to improve diversity in the fields of science and engineering. PCCM's education outreach programs are aimed at engaging underrepresented groups at all levels of education, as well as improving science education for all students. Some examples of our commitment to diversity include:

- PUMA:** working with underrepresented middle- and high-school youths--in partnership with Mercer County Community College's Upward Bound, GEAR UP, and SMILE programs--from Trenton, NJ, which has a 47% HS graduation rate among seniors. (Note: 100% of PUMA students graduate HS)
- Community House Partnership:** close the minority achievement gap in Princeton, NJ.
- PREM (NSF):** partnering with the California State University--Northridge to enhance diversity in materials research and education.
- YWC (Young Women's Conference):** empower young women to pursue careers in STEM.

Public Education Programs:

- Printcyclopedia
- Holiday Science Lecture
- Informal Science Partnerships
- Materials Science NanoDays / Nano Mini-Exhibit
- Stars of Materials Science

Undergraduate Student Programs:

- REU: Research Experience for Undergraduates
- PREM: Partnership for Research and Education in Materials

K-12 Student Programs:

- PUMA: Princeton University Materials Academy (middle & high school students)
- Research Experience for HS Students (ACS Project SEED)
- Science and Engineering Expo

Teacher Programs:

- RET: Research Experience for Teachers
- Professional Development workshops
- Teachers as Scholars

Graduate Student Programs:

- Princeton Summer School on Condensed Matter Physics



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