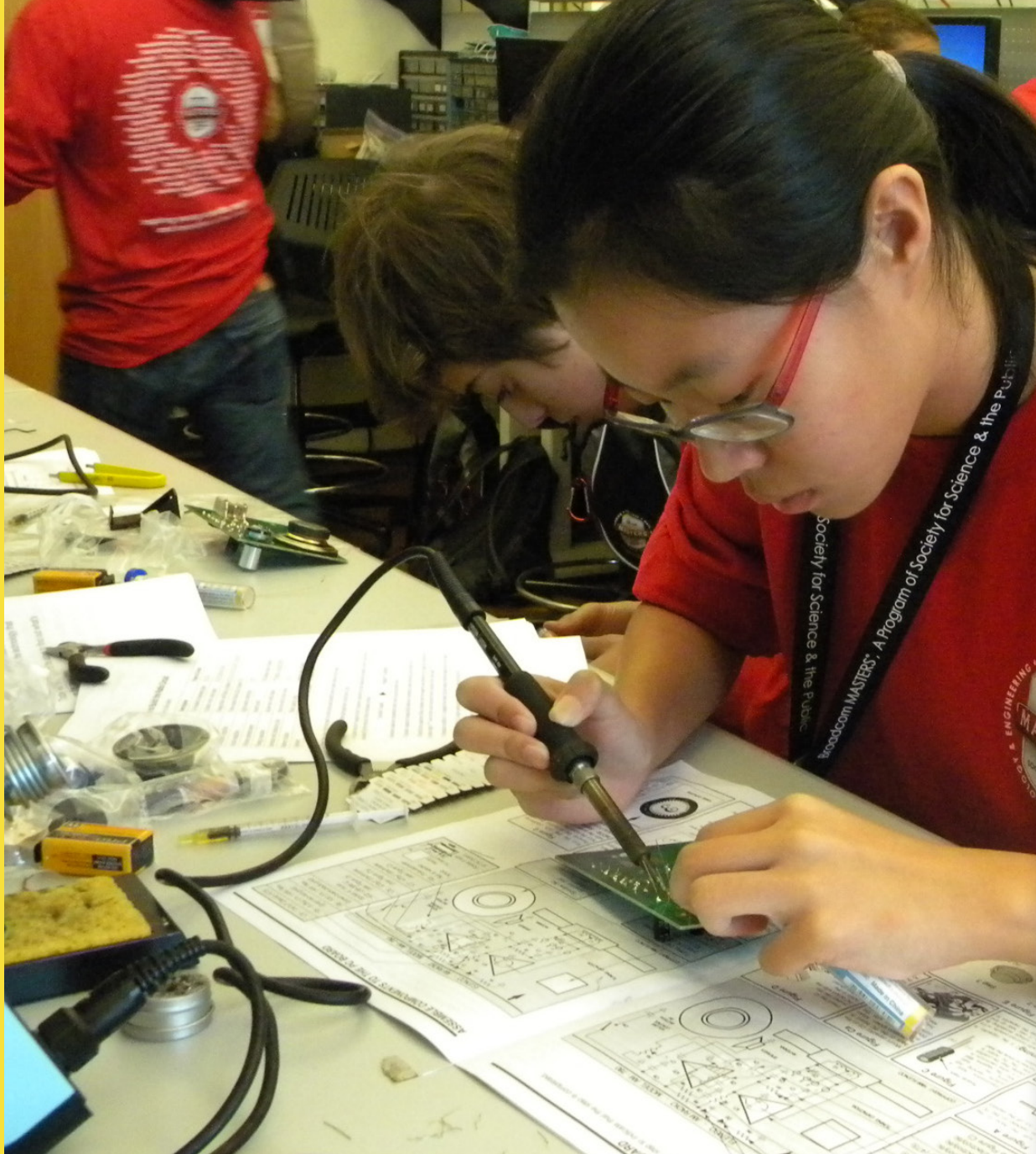




Carnegie Mellon University

The Office of the Assistant Vice Provost for Educational Outreach

Partnering With the Community



Above: Middle school students participate in a hands-on educational program.



Carnegie Mellon has been recognized on the President's Higher Education Community Service Honor Roll for eight consecutive years!



MESSAGE FROM THE ASSISTANT VICE PROVOST

As part of the Division of the Vice Provost for Education, the programs, services, partnerships and recognition activities coordinated by the office of the Assistant Vice Provost for Educational Outreach support the work of Carnegie Mellon faculty, students and staff as they design and implement initiatives to share their expertise and passion for their work with audiences outside of the university. Our group provides leadership guidance and represents CMU at local, national and international events such as NSF Broader Impacts Summits, the Pittsburgh SciTech Festival, and the Intel International Science and Engineering Fair. Other services to the campus community include compiling information for Carnegie Mellon's application to the President's Higher Education Community Service Honor Roll, partnership development with local organizations and schools, Broader Impacts consulting and strategy development for NSF proposals, support for PA Department of Education Act 48 approval for K-12 educator professional development activities, and operational support for the protection of children in Carnegie Mellon programs, activities and facilities.

Although the university does not have a school or department of education, Carnegie Mellon has unique resources, perspectives and expertise and we offer more than 75 distinct opportunities to improve the educational process for learners. I am continually inspired by the dedication of Carnegie Mellon faculty and students who contribute time and energy to share knowledge and excitement for their field of work with others. I hope that the information provided in this booklet is useful to you.

Please contact me if you have any questions.



Above: Judith Hallinen, EdD, Assistant Vice Provost for Educational Outreach and Gelfand Center Executive Director

BROADER IMPACTS

Assisting faculty and graduate students as they develop effective strategies to benefit society and contribute to the achievement of specific, desired societal outcomes, as required by NSF.

Coordinating the Broader Impacts Resource Connector for the Office of the Vice Provost for Education, we support the integration of education and outreach into proposals for the National Science Foundation and other agencies that require the researcher to address societally-relevant goals. We assist with the development, implementation, and assessment of high-quality Broader Impacts strategies.

Specifically, we are available to:

- Provide data and content
- Provide guidance to develop activities that enhance recruitment and retention of underrepresented students or incorporate service learning
- Connect faculty with external groups
- Support the design and implementation of seminars, workshops and training sessions.

Below: Carnegie Mellon faculty and graduate students provide educational experiences for K-12 teachers.





OUR STAFF

Christa Romanosky, M.F.A.

Director, Child Protection Operations
cromanos@andrew.cmu.edu
(412) 268-3291

Judith Hallinen, EdD

Assistant Vice Provost for
Educational Outreach
Gelfand Center Executive Director
hallinen@cmu.edu
(412) 268-1498

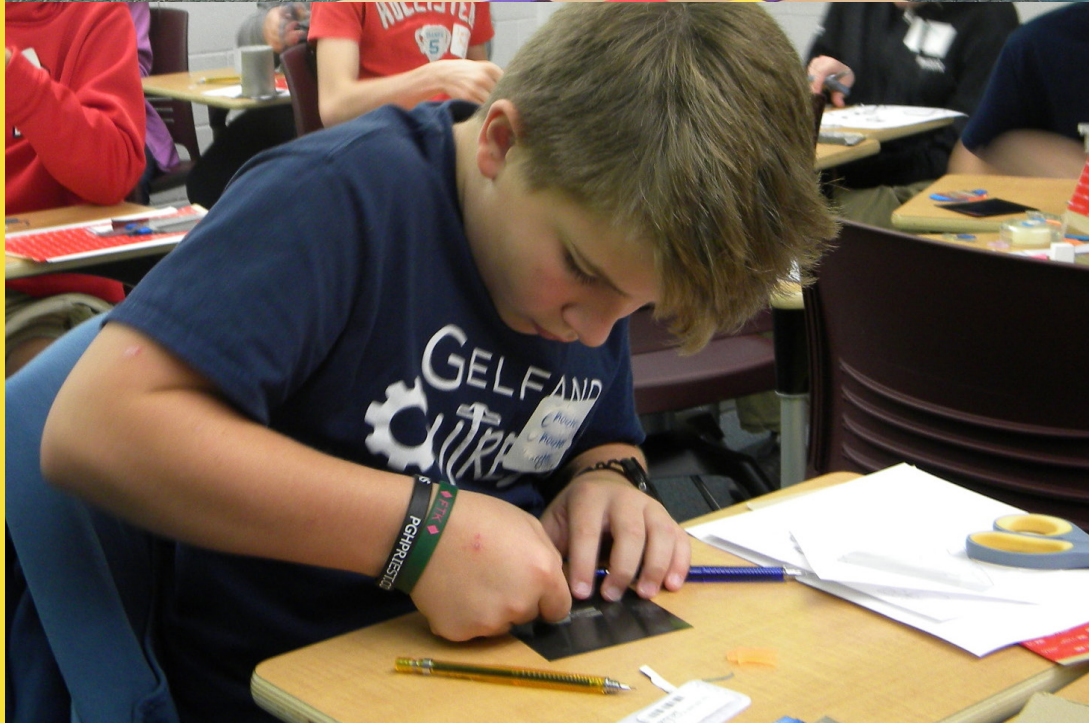
Pam Piskurich, M.S.

Gelfand Center Program Director
pjp@andrew.cmu.edu
(412) 268-1863

Kristin Lavery, M.A.T.

Gelfand Center Assistant Director
and Business Manager
klavery@cmu.edu
(412) 268-6819





Above: Promoting rigorous, hands-on, fun lessons and STEM activities for the next generation of leaders.





THE LEONARD GELFAND CENTER

The Leonard Gelfand Center, established in 2006, is proud to partner with Carnegie Mellon faculty, students and staff to develop and implement educational programs that make a difference. We are grateful to alumnus Mark Gelfand who provided the endowed gift to create a permanent structure to sustain educational outreach activities. We strive to create mutually beneficial programs that enhance the experiences of university students while assisting members of the community. These partnerships also support the work of faculty who seek to create meaningful Broader Impacts plans for proposals to the National Science Foundation and other agencies.

The Leonard Gelfand Center for Service Learning & Outreach supports and celebrates university/

- Enriching Gelfand Outreach workshops for K-12 students
- Professional development programs for educators, such as “What is Research?”
- Educational demonstrations and activities conducted at community events and schools
- Mini-grants to faculty and student organizations to support STEM outreach activities
- Dissemination of information about policies that impact the implementation of CMU educational outreach activities
- The presentation of annual faculty and student awards that recognize sustained and effective commitment to service

CMU STUDENT INVOLVEMENT

The Gelfand Center connects students with service learning opportunities, including tutoring and mentoring positions, so that they are able to build and refine their leadership and teaching skills to prepare for real-world applications.

Carnegie Mellon students who are interested in education and outreach often work with Gelfand Center staff to create or participate in motivational, exciting hands-on programs for K-12 students.

Students who participate in service learning endeavors develop leadership skills and refine their teaching, planning, and communication skills. Many work alongside expert teachers who model positive teaching behavior and help the students to improve their own abilities as tutors and mentors. Students who engage in service learning are able to apply what they already know to real-world situations, building a more comprehensive knowledge base. They may think more deeply about problem solving strategies as they help younger students to master new content.

Students at CMU have rigorous schedules, and their availability often changes each semester. Students who cannot fit tutoring and mentoring into their schedules may choose student employment with the Gelfand Center office, helping the staff with administrative tasks, classes for children, and updates to the website.

Not all of our students participate in service learning directly through the Gelfand Center. Some choose volunteer opportunities offered by Student Activities, academic departments or officially recognized student-run organizations. Carnegie Mellon also offers more than 25 credit-bearing courses that include a service learning component. Carnegie Mellon students contribute more than 216,000 hours of service to the community service annually.

Benefits of Service Learning for Students

Students are able to:

- Develop a greater sense of self and their role in society
- Expand their understanding of the needs of individuals and organizations
- Connect and apply their expertise to address the needs of community members
- Improve their public speaking and active communication skills
- Be motivated to actively engage in service experiences after graduation

Sci-Tech Tutoring

One of the long-running service learning opportunities for Carnegie Mellon students is a partnership with the Pittsburgh Science and Technology Academy for students in grades 6-12. Since the school opened in 2009, the Gelfand Center has employed Carnegie Mellon students to integrate tutoring assistance into the academic day. Many of our dedicated tutors return for multiple semesters.



Above: Carnegie Mellon students share hands-on STEM activities with children at a community event.

► Testimonials

Student:

“From working as a SciTech Tutor, I have developed a strong relationship with the teacher, Dr. Kinchington, and with each of her students. These high schoolers look to me for help with concepts in biology, but I also serve as a mentor, answering questions about finishing high school, moving on to college, and “next steps.” The time I have spent helping to teach biology concepts has solidified my own core knowledge base, and it has helped me improve my public speaking skills and confidence overall.”

-Cameron Breze
Chemical and Biomedical Engineering Student

Community member:

“SciTech partnered with the Gelfand Center as an opportunity to bring tutors and mentors into our science department. My students and I have been blessed to work with Cameron. He provides support as an extra hand in the classroom environment as a tutor, lab partner and co-teacher. This has been invaluable to me and my students.”

-Dr. Edwina Kinchington,
High School Biology Teacher,
Sci-Tech Academy

RECOGNITION ACTIVITIES

Rewarding the efforts of exceptional members of the Carnegie Mellon community who value education and strive to make a difference in their community.

Gelfand Student Service Award

Established in 2010, students are presented with the Gelfand Student Service Award to recognize their commitment to service learning and outreach on and off campus. Our winners come from all colleges at Carnegie Mellon. Each has exhibited strong leadership skills as they share their time and expertise to enrich the lives of individuals in the community. The impact of their work as tutors, mentors, workshop leaders, club members, volunteers, student researchers, tour guides, translators, and more is felt outside of Carnegie Mellon, to Pittsburgh and beyond.



Mark Gelfand Award for Educational Outreach

Established in 2009, The Gelfand Award is given annually to a member of the university community who has combined sustained, effective community service with academic coursework and a deliberate process of student reflection to enhance the learning experience and teach social responsibility to students while improving some aspect of life in the community. Special consideration is given to individuals who focus on science, technology, engineering or mathematics.

Left: Recent Gelfand Student Service Award Winners interact with young learners.
Right: Mark Gelfand Award winners Carrie Doonan (Biology) and Carol Frieze (Computer Science) conduct activities with local students.



K-12 PROGRAMS

Supporting K-12 teachers and students through unique educational experiences that highlight the research and work of faculty and staff at Carnegie Mellon.

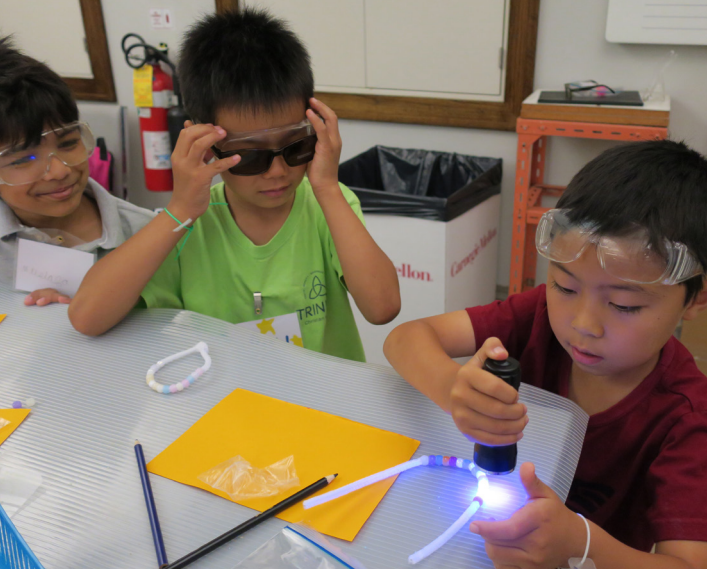
Gelfand Outreach

Saturday Series and week-long Summer Program Gelfand Outreach classes are designed and taught by Carnegie Mellon faculty and staff to connect students to the newest discoveries in technology, science, and other fields of research. We encourage creativity and innovative thinking through rigorous, hands-on STEM-focused experiences. Students can study the newest and most effective programming languages, explore architecture and how things work, interact and engage in group work to test models and prototypes, and share ideas about their hypotheses, experiments, and conclusions. Thanks to CMU alumni, including Bernard Meisner, E'71, we offer scholarships for students who qualify for financial assistance.

CMU student employees serve as Gelfand Outreach teaching assistants, inspiring K-12 students to get excited about learning. They explain difficult concepts, ask probing questions, guide and foster the independent and group learning processes, and in doing so, refine their own skills as educators and leaders.

Educator Professional Development

K-12 teachers participate in thousands of hours of professional development at Carnegie Mellon each year. The Gelfand Center coordinates or conducts many of these experiences, including the popular *What is Research?* summer program which immerses K-12 educators in demonstrations, conversation, activities and tours that help them to gather accurate and up-to-date knowledge about a variety of STEM careers. At the same time the teachers learn about the importance of creating opportunities for their students to participate in original research and development opportunities. Many sessions involve current university students who share their experiences conducting research in university laboratories. Teachers learn about the skills and experiences that have motivated the students to pursue research work. The format of *What is Research?* is unique as it allows teachers to interact with practicing researchers from a variety of fields during one event.



Above: Young learners participate in hands-on laboratory activities during a summer Gelfand Outreach workshop.

▶ Testimonials

Student:

"The program was excellent and challenging...!"

-Anonymous

Parent:

"He thoroughly enjoyed the class- every aspect of it! For me, it was a real pleasure to pick him up after class each day, because he was so excited to tell me about what you had done in class."

-Anonymous

Teaching Assistant:

"The Gelfand Center has been a great and wonderful place for me to grow as a student employee. I got a very dynamic experience of being a mentor to the next generation of great minds and being able to work side by side with strong staff members who are fully dedicated to facilitating a place where young students can thrive."

-Jake Chrurilla,
Undergraduate, Student Employee,
& TA for Gelfand Outreach

CHILD PROTECTION OPERATIONS

Keeping kids safe through university policy, practices, and resources for programs and activities involving minors.

Carnegie Mellon is committed to providing a safe and secure environment for all minors involved in any programs or activities conducted on university premises, as well as any off-campus programs or activities sponsored by the university.

In support of Carnegie Mellon's Policy on the Protection of Children in Carnegie Mellon Programs, Activities and Facilities, Child Protection Operations provides guidance to faculty, students and staff to ensure the safety and well-being of minors while setting high standards to encourage the pursuit of excellence in our engagement, outreach, and service to the community. We are available to help individuals understand the requirements of Pennsylvania Act 153 and the CMU Policy.

Child Protection Operations provides the following resources for all university-affiliated programs and activities that involve minors:

- Program registration
- Best practices
- Assessment of background certification needs
- Professional development for tutors/mentors
- Boundaries training
- Approved release forms
- Mandatory reporting protocol



Carnegie Mellon University
CHILD PROTECTION OPERATIONS



Above: Young students enjoy a chemistry activity.

