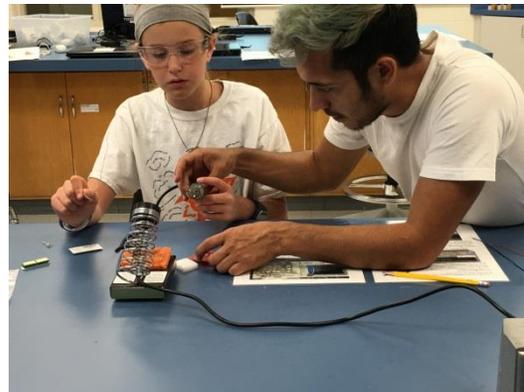


**ExploreHope
2016-2017 Annual Report**

ExploreHope, in its dynamic third year, sponsored active Saturday programs, connected with new outreach partners, and completed a successful summer camp season. Over 130 Hope students gained valuable pre-professional experiential learning opportunities. Events reached over 2000 K-12 students with enriching, hands-on learning. ExploreHope is finding its home at Hope College.

Experiential Learning

Hope College students grow and expand themselves in amazing ways when given the opportunity. Our ExploreHope summer staff spent 8 weeks in a dynamic pre-professional experience in our summer program. The staff managed their own time and their own responsibilities, worked with colleagues, taught and lead K-12 students, and thrived in a fast paced, diverse environment. Their reflections are shared in the program section.



Besides our summer staff, over 109 short term experiences were provided in our Saturday programs, leading students in hands-on learning exploration. Two students additionally worked as STEM mentors with the Step-Up middle school program. One student managed our middle and high school air quality monitoring program.



Community Impact

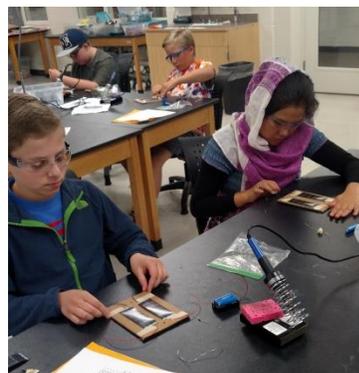
ExploreHope brings experiential educational opportunities to the community. Programs are developed around unique aspects of the college that benefit K-12 students. Over the course of the year, 2,145 community members explored a range of science and engineering topics through outreach events. These events included summer camps, Boy and Girl Scout badge days, a Middle School Girls Day and Brain Awareness Week. Additional grant programs brought equipment and curricular

assistance to local public schools. These programs and the summer camps were possible only through a strong spirit of partnership with the community and other Hope College units such as the Holland/Hope College Sustainability Institute and the Kruiuzenga Art Museum.

Service to Hope College

ExploreHope serves Hope College by providing a central resource for community and K-12 programs. ExploreHope does this by:

- Sponsoring short and long term experiential learning opportunities
- Providing a central resource on campus for programs involving minors, including leading development of a campus-wide Youth Protection Policy
- Providing Broader Impact programs for research grants
- Partnering on the growth of the Musical Arts Academy
- Partnering with the Neuroscience Group on Brain Week
- Facilitating multiple outreach programs with student organizations such as the Society of Women Engineers, Chem Club, and Helping Minds



Strategic Plan

ExploreHope focuses resources on Hope's Strategic Plan.

- Goal 1/Objective 1/KPI 1&3: Student experiential learning experiences
- Goal 1/Objective 3/KPI 4: Student impactful mentoring
- Goal 3/Objective 1/KPI 4: Positive student cross-cultural experiences
- Goal 5/Objective 2/KPI 3: Excellence in co-curricular programs
- Goal 6/Objective 5/KPI 1&2: Prudent financial management for the greatest impact



Financial Summary

ExploreHope is a self-funded entity at the College that raises all its expenses, including all salary and facilities fees, from program income, donations, and grants. ExploreHope is solvent, but works with a very tight budget.

Financial Highlights

- \$263,534 served 133 Hope students and 2,149 K-12 area students and community members
- \$18,643 from prior profits was invested into program improvements
- \$59,258 in grants awarded to ExploreHope

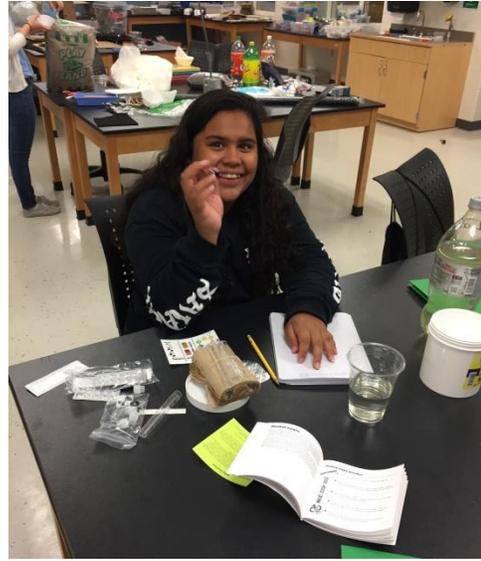
Moving Forward

Brenda Gugino, after 20 strong years with the program, stepped down this August to pursue educational opportunities. Shana McCrumb, in a shared position with biology, will be one-quarter time with ExploreHope to maintain program operation and enhance program curriculum. Cooperation with HR, business services, auxiliary services, and other Hope offices is bringing integration of ExploreHope further into Hope operations.



Challenges

- **Funding** – Maintaining a self-funded environment requires continual grant writing and solicitation. Given the low program staff maintaining funding levels is difficult.
- **Marketing** – Schools are changing the ways in which they share community information with families. Additionally, families are not able to keep up with continual media requests. ExploreHope needs to work with community and Hope partners to reach students and families in a more focused manner.
- **Staffing** – ExploreHope maintains .75 FTE during the academic months to prepare for the 50 summer camps, run Saturday programs and raise funds. Administrative support is being sought to support this high level of tasks for the given staffing. Students are hired when possible, but this requires funding and is limited by appropriate work for them.



Focus Areas

Program access – ExploreHope program participants need to better reflect the demographics of the area we serve. We will focus on partnerships and scholarship funds in order to move closer to this goal, including translation of materials into Spanish. Not only is this valuable community stewardship, but increases the cultural understanding of our student staff and volunteers.

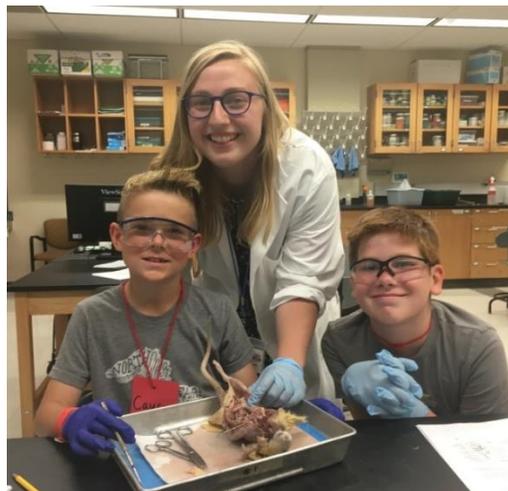
Curriculum innovations – Time will be invested in curriculum revisions for middle and high school students to ensure we continue to provide cutting-edge, relevant experiences.

Partnership strengthening – Successful programs require strong partners and community links. The past couple of years we have created a strong foundation on which we can continue to grow. Future partnerships will include better integration with Hope administrative offices such as Human Resources and Diversity and Inclusion, better coordination with student organizations, and more collaborative programs with area organizations. Leadership in the development of a minors on campus Youth Protection Policy will additionally strength partnerships.

Program Highlights

Hope Student Experiential Learning

Summer staff are provided two weeks of training prior to the six weeks of camp programs. Training focuses on teamwork, communication skills, classroom management, curriculum development, diversity and inclusion and safety. Included in this training is three hours of on-line training through Hope's Safe College's system on topics including first aid, AED, allergic reactions, conflict management, and diverse populations. Hope's Title IX and safety officers also spoke with the staff. At the end of the summer, staff are asked to reflect on their experiences.



Students from all majors are welcome to apply for camp staff. This year staff came from the engineering, chemistry, biology, nursing, music and education departments.

"I was able to build up confidence in ..[skills]... that may have not been too familiar to me, as well as solidify my knowledge in things that I already knew when it came to science and engineering."

"I mostly believe that this experience enabled me to see which character traits that I still need to work on in my relationships with the kids and my coworkers, and also to see which character traits are my strengths that I can use to help others in my future career."



Summer Camps

50 summer camps were offered for 1090 students in 2017 for all ages of students entering grades K-12 with topics ranging from Tykes Lego and Spy Camp to Programming and Circuits and Arduino Microcontrollers. New camps were coordinated with the Musical Arts Academy and existing camps with the Communications Department were continued.

Camp Program Science Standards and Program Evaluation

Funding was awarded from the Frost Center for a baseline evaluation of the learning gains within science camps. Each of the science focused camps was aligned with 1 to 3 learning objectives from the State of Michigan Science Standards. Through pre- and post-tests, the evaluation measured an increase in understanding from the start to the end of the camps. While this information is preliminary, it provides a baseline for future grants and more detailed program evaluation.

Saturday Outreach Programs

Girl Scouts

Two outreach events were conducted for the Girl Scouts, including a Junior (grades 4-5) Journey day in which they explored forms and uses of energy and an Outdoor STEM day in conjunction with the Kruisenga Art Museum for all ages in which they explored patterns, art and the science of the natural environment. ExploreHope has three events planned this year with the Girl Scouts and one combined with the Boy Scouts.

Boy Scouts

Two outreach events were conducted with the Boy Scouts focusing on STEM related badges. In November scouts earned Environmental Science and Chemistry Badges. In January, they focused on Digital Technology and Citizenship. This year, ExploreHope has three events planned with the scouts focusing on Environmental Science, Electronics, Nuclear Science and Engineering.



Middle School Girls Day

This event started as a celebration of National Engineers Week in February. Now Middle School Girls Day has expanded to include participation of the Natural and Applied Sciences student organizations and the local chapter of the Association for Women in Science. This Saturday event exposes middle school girls to a range of career options in science and engineering.



Brain Awareness Week

Partnering with the Neuroscience program, Brain Awareness Week was a huge success. In celebration of a National Brain Week program, the neuroscience program with the Helping Minds student organization, visited Step Up and local schools to share hands-on activities with students about the brain. A guest speaker highlighted recent topics in brain research for faculty and staff. The focus of the week was Saturday's Brain Day event. With exhibits shared by University of Michigan graduate students, the community was invited to participate in exploring the brain through exhibits and displays. Over 250 were in attendance.

Step Up Engineering Days

Several years ago, ExploreHope began coordinating with the Step Up program as they expanded their academic scope beyond reading. Through grants, math and science activity boxes were created in partnership with the Regional Math and Science Center at Grand Valley State University. Additionally, science and engineering students organized a hands-on engineering project for the Step Up students in the fall and spring semesters. Based on the Engineering Adventures series from the National Center for Technological Literacy, the participants had several days of coordinated engineering instruction and exploratory experiences.

Public School Coordination

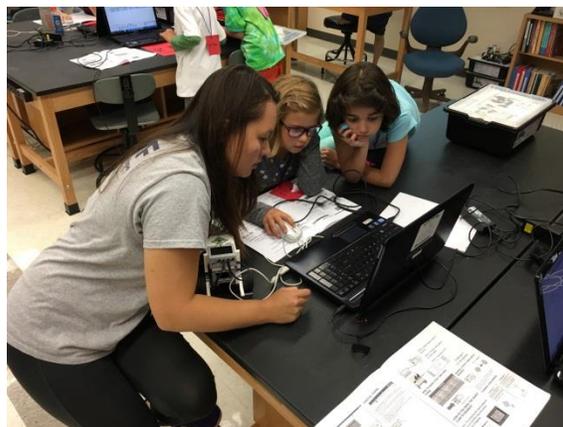
Funding from the Michigan Space Grant Consortium provides funding for two active coordination projects with area public schools.

Air Quality Monitoring

Simple air quality monitors are equipped with carbon dioxide and particulate matter sensors which students can use to test the air in and around their homes and schools. The monitors have introduced science lessons to more than 300 middle and high school students in West Michigan.

The monitors were additionally the focus of an AP Calculus class project and our Experimental Design summer camp. While the data from these monitors are not yet calibrated to a high enough level to publicize as community air quality assessments, the findings provide powerful examples to illustrate how environmental conditions can change based on a variety of conditions. Students are investigating questions related to changes in air quality in different

sections of their homes, how the air composition changes as all the students show up for school in the morning, or the effect of humidity on air quality. Through a partnership with local professionals, the monitors are receiving an upgrade and face-lift this fall for improved data collection in the classroom.



Engineering the Future Academies

Holland Public Schools' (HPS) seventh graders spent a week on campus as part of a partnership with the new STEM program at HPS. In partnership with math education professor Dr. Eric Mann, 5 STEM teachers spent a week planning new curriculum for their students and creating a week-long camp to pilot those programs with students. Four Hope education majors participated in the planning and camps to gain experience under in-service teachers and participate in the curriculum planning process.

For further information, please contact us.

Susan Ipri Brown, Director
Shana McCrumb, Curriculum Director
ExploreHope

explore@hope.edu
hope.edu/explore
616-395-7924