



Vol. 2, No. 5, January 2018

February CPG Membership Meeting

- **What:** Monthly CREST Parent Group (CPG) board meeting
- **When:** Monday, February 5, 2018 6:00pm
- **Where:** CREST Building
- **Who:** All CREST parents interested in volunteering on the CPG Board

Click for the [CREST Parent Group calendar](#) and see all the latest events at CREST.



DID YOU KNOW?

CPG News and the Crest Parent Group website both periodically post student scholarship and summer program opportunities. Be sure to read the information included in this Newsletter under Community Connections or access the [CPG Website](#).



CPG Update



MARK YOUR CALENDAR

CREST Parent Group Internship Night

- **When:** Monday, January 22, 2018 6:00pm
- **Where:** PVHS Cafeteria
- **Who:** CREST sophomore and junior families interested in learning more about student internships.

CREST Coordinator's Message Dec 21, 2017

As we end this eventful calendar year, and aren't they all, I am reminded to not only focus on the daily issues, challenges, and tasks, but to keep my eye on the "10,000 foot" view of what we are doing. Yes, Computer Science has been a challenge this year, but it forced us to step outside the box, to look in unusual places for help. Yes, we had to replace an Engineering teacher, the second one in two years, but Jackie Setton joined and added to our team. Yes, Fall is project Hell, but the quality of projects and the attitude of the work teams was some of the best we've seen in years.

I recently entered the CREST program into a few recognition competitions. As I ponder what to write, I am reminded of the what we have accomplished in the past nine years. We are the leading STEM program in the state; I hear it all the time. Other districts ask for our advice and help with their plans. We were asked to join the STEM Community of Practice, a statewide STEM learning community, not so that we can learn from others, so that they can learn from us. I remember our students are Flinn, Baird, National Merit, Presidential, and Barrett Scholars. Our students are involved in original research on cancer, migraine headaches, and plant propagation, just to name a few. They are writing research papers for professional journals. They prepared for and succeed at the next level.. And with all that, we have a parent group that fully supports us, defends what we are doing, questions respectfully to keep us honest, and shares their enthusiasm, time and effort on behalf of the program. When I look at all that we do and accomplish, I am amazed and proud to be part of this effort. We could not be where we are today without the support of parents, the efforts of students, the support of PVHS and District Administration, and of course, the dedication, care, time, and effort of the CREST teachers. Thank you to all of you for giving me the honor and privilege to work with you in this journey.

A couple of news items from CREST:

- **Computer Science:** The new CS teacher, Marcus Scharbach, will start on Jan 8. Marcus is a certified teacher with a few years experience in middle and high school teaching and coding. I will ask him to write a short introduction for the February newsletter. We also hired a new Computer Maintenance teacher to replace Anita Venter who took another teacher's place at PVHS. Bhawna Verma is a computer professional with a number of years of computer experience. She will teach the new Networking Technologies program as well as teach AP Computer Science A (Java) next semester.
- **CTE Computer Maintenance:** PVHS will transition from "Computer Maintenance" as a Career and Technical Education (CTE) program to "Networking Technologies" to better reflect industry needs and suggestions. PVHS will become a Cisco Network Academy which will bring an array of resources to both the Networking and CREST Computer Science programs. Stay tuned as we work to solidify this program.
- **Recruiting:** We are having a very successful recruiting year; we are way ahead of last year's numbers at this point. Overall applications are up, Engineering is about full, Bioscience is starting to fill up, and Computer Science has a number of open slots. I expect to fill the programs by this Spring. The enthusiasm of students who accept our offer of admittance is wonderful to see. Next year's class

may turn out to be as special as this year's class or students.

CREST Advisory Board: I am not sure if you are aware but the CREST program has an business and industry advisory board that meets quarterly. The Board is very active and provides us much needed advice on curriculum, provides judges for events, hosts field trips, job shadows, and internships, and many other support activities. This year we formed curriculum sub groups to take a "Deep Dive" into our curriculum. Computer Science is complete, the Bioscience team meets in January, and an Engineering team will meet later in the Spring. If we are able to get the support, expertise, and resources that came out of the Computer Science group to our other groups, we will be in good shape for the coming years. A big thank you to the CPG who are providing catering for CREST Advisory Board meetings this year. Not only is the food good, its always artfully arranged. Special thanks to Mary Schmelzeis for her efforts on this front.

So this is my message for this month and this year. I would like to end with his: I am grateful for the encouragement and support I get from parents, the CPG, PVHS Admin, and teachers as I work with you all to move this great program forward. I am grateful for a wonderful facility that has no rival. I am grateful for the engaging curriculum that challenges students to move out of their comfort zones and accomplish what they never imagined, and I am grateful for dedicated and skilled teachers who give the students their all, each and every day. I am especially grateful for your trust to send your children to us, to allow us to fulfill the mission of PVHS ..."to build a community where students want to go to school, parents what to send their children,...where students feel safe known and cared for..." We don't always accomplish this, but we sure work at it every day.

I hope you all had a wonderful holiday and look forward to the new year as much as I do.

Best wishes and with utmost gratitude,

Phil Howardell, CREST Coordinator

THANK YOU!

Thank you parents and volunteers who came to set up and decorate, who sent in delicious homemade soups and desserts, who went shopping to provide for the hot chocolate bar, dessert bar, salads, water bottles, and who supported the staff with gift cards and monetary donations. Thank you to everyone who stayed to serve the delicious food and to those who helped clean up afterwards. A special thanks to Blue Orthodontics for

providing the main course which was a very generous amount of penne pasta, spaghetti and bread. We could not have held this event without each of your helping hands and serving hearts. We are thankful for you.



STAY CONNECTED

Follow CREST on Twitter. For news from the CREST Program, faculty, and about CREST student accomplishments and timely information, follow PVHS CREST on Twitter @pvhscrest.

Stay connected through text updates by signing up for Remind.



STUDENT NEWS

Parent Chaperone's Needed

Field trip season is upon us and we will be in need of chaperones soon. The district has changed the process for chaperone approval; I have attached the instructions below.

Every chaperone/volunteer must repeat the process annually, even if the chaperone is a district employee and/or certified teacher. The current turnaround time for continuing applications is ~2 weeks.

Thinking ahead, HOSA will need 2-3 (1-2 males) chaperones for the 3 day State Leadership Conference in Tucson at the Westin LaPaloma resort 4/2-4/4/18.

Poster Symposium

Thanks to all for an exciting and educational poster presentation from the bioscience and engineering students and a special thank you for the great snacks provided by your CPG dollars at work!



Both **Honors Stem Collaborative** and **Engineering Design & Development** classes have finished their semester long assignments.

Their ideas, concepts, and solutions developed into some very nice projects and were presented extremely successfully at the Crest Symposium evenings. The students would like to thank everyone who helped them out as stakeholders, survey takers, and supporters of all their hard work.

First Tech Challenge

First Tech Challenge, or FTC, is a new club focused on teaching STEM principles by solving complex challenges using robotics. In FTC you will have the opportunity to learn engineering, electrical, and computer science principles and apply them, building robots from scratch in

order to participate in a challenging game. This year's game is called *Relic Recovery*, and involves sorting blocks into specific patterns to score points while you and your alliance partner work to defeat the other team. All students are welcome and no previous knowledge is required to get involved. The team meets every Tuesday and Wednesday in Mr. Vivers' room after school from 2:10 PM to 4:00 PM. We'd love to have you come join us for a meeting if you're interested in engineering and robotics, and join us for our 2017-18 build season!



Alumni Corner

Connor Leicken

Hello all! My name is Connor Leicken, and I'm now continuing my education at ASU in the Fulton Schools of Engineering after four years in the bioscience program. While in the CREST program, much of my time spent working in the labs, delivering presentations, and learning more about the inner mechanisms of life than most do in a lifetime has shaped my work as a college student today. I'd like to take some time now to stress some of the important opportunities the CREST program has to offer and what those can mean for students rising into post-secondary education.

One of the biggest realizations I've had since going into college is that experience is more important than just knowledge on its own. The CREST program allows for students to work around both realms, tying together book smarts with practical application in a memorable way. However, even this alone is not enough to take on a career in the field each student is looking towards. I would highly encourage students to take some time over the summer, even before senior year when an internship is required, to take on an internship or temporary job. Many professors at ASU, for example, are more than welcome to high school students looking to get their hands dirty with research, including areas such as computer science and medicine. Even without much experience in a given field, interns tend to be doing manageable work that provides a foundation for future projects and career pathways. Working on summer projects or taking coding camps can also help prepare for college applications and refine what pathway to take when looking towards life beyond education. Personally, I spent my summer between sophomore and junior year in a research lab where I gained an understanding of data analysis, cancer research, microscopic imaging, and presenting findings. Those skills have translated over into my working life today, as I feel more confident in my ability to conduct research and communicate with professionals in the real world.

I'd also like to stress that the teachers, faculty, professional organizations, and peers at CREST are all valuable resources in finding where to leap next as a student. Even for a slight interest in a subject, high school is the perfect time to experiment before scholarships, time, and money are more at risk. Take some time to talk to teachers, sign up for CTE classes, and work on projects you'd be proud to show others or put on a resume. It's planning now that will pay off in the long run, and looking back on that work while applying to colleges can really help demonstrate that preparation for the next challenge.

At ASU, I am a part of several professional organizations that continue to shape my career pathway. The Grand Challenge Scholars Program (GCSP) provides students with an opportunity to apply their knowledge of engineering to the 14 grand challenges of engineering, and through this program, I've gotten to know several new friends in Fulton while hearing lectures from professionals in their respective fields even before taking the first class this spring. The Biomedical Engineering Society (BMES), as the name implies, is the professional organization for biomedical engineers, offering networking opportunities to industry leaders such as Medtronic and Stryker and lectures from professors on campus about their research. Finally, the Software Developers Association (SoDA) is the professional organization for software developers, where presentations from Statefarm about React Native and Google coding competitions are held. Each organization provides the opportunity to grow and develop new skills beyond what your major can teach you, making them powerful tools to use while navigating through college.

Extended thanks to the CPG for allowing me to speak in this month's edition of the newsletter, and I hope that I've been able to shed some light on how to get ahead before college hits. If you'd like to ask any questions about college or specifically Fulton Engineering, I'll try to answer to the best of my freshman knowledge. Feel free to drop me a line at cleicken@asu.edu, and have a great New Year!

Bioscience Alumni News

News from past Bioscience students can be found on Mrs. Landry's [blog](#).



Community Connections

Bank of America Charitable Foundation's Student Leadership Program

The Bank of America Charitable Foundation's Student Leadership Program is accepting applications for the 2018 Student Leaders program. Since its inception in 2005, the Bank of America Student Leaders Program has recognized

more than 2,500 exemplary high school juniors and senior who have a passion for improving their communities. Students can apply for the program by going to www.bankofamerica.com/studentleaders. Please note the application opens on October 20, 2017 with a deadline of February 2, 2018.

Education sponsor a wide range of summer activities including lectures featuring distinguished NIH investigators, career/professional development workshops, and Summer Poster Day.

For more information visit their site by clicking on the picture below.



Stanford Medicine High School and Pre-medical Student Summer Internship

The Cardiothoracic Surgical Skills and Education Center Stanford Summer Internship is designed to educate high school and pre-medical students considering careers in science, medicine, and public health in basic and advanced cardiovascular anatomy and physiology as well as medical and surgical techniques that will be utilized in pre-medical and medical school. This program is open to all students worldwide.

For more information visit their site by clicking on the picture.



National Youth Science Camp

Two high achieving STEM high school seniors per state are selected by merit through an online application process to attend this amazing three week+ program FREE of charge (air travel is included!).

The National Youth Science Camp (NYSCamp) www.nysc.org provides an almost month-long STEM and outdoors experience like no other. This includes presentations on cutting edge science, directly interacting with presenters in an informal setting, as well as, opportunities for outdoor adventures that include caving, mountain biking, climbing, backpacking and kayaking.

Online applications are open from November 1, 2017 - February 28, 2018 at 6:00pm EST.

Students may apply at <http://apply.nysc.org>

The NYSCamp is planned for June 27 - July 21, 2018.

Also, get a sense of this experience at <http://2017.nysc.org>

Those who say the world can't be changed probably never tried

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National Institutes of Health (NIH) Summer Programs

Summer programs at the National Institutes of Health (NIH) provide an opportunity to spend a summer working at the NIH side-by-side with some of the leading scientists in the world, in an environment devoted exclusively to biomedical research (At the NIH "biomedical sciences" includes everything from behavioral and social sciences, through biology and chemistry, to physics, mathematical modeling, computational biology, and biostatistics). The NIH consists of the 240-bed Mark O. Hatfield Clinical Research Center and more than 1150 laboratories/research groups located on the main campus in Bethesda, MD, and the surrounding area as well as in Baltimore and Frederick, MD; Research Triangle Park, NC; Hamilton, MT; Framingham, MA; Phoenix, AZ; and Detroit, MI. NOTE: the number of positions in Hamilton, Framingham, Phoenix, and Detroit is limited.

Internships cover a minimum of eight weeks, with students generally arriving at the NIH in May or June. The NIH Institutes and the Office of Intramural Training &



Supporting CREST

Families and friends can help support the CREST Parent Group and student organizations (HOSA, Skills USA (Engineering), and Skills USA (Computer Sciences)) with donations and tax credit donations. For more information or to make a donation please visit the CPG website and remember to please consult a tax advisor for questions regarding tax credits:

<http://crestparentgroup.org/donate/>

Employee Donation Matching Programs

Employers will often match employee donations. Two local employers have made sizable donations to CREST this year! Special thanks go to Honeywell and American Express for their support of CREST programs. We encourage all CREST families to inquire about company matching programs. 100% of donated funds go directly to our students and teachers at CREST.

