Dear Students, Teachers and Parents,

By now, you have probably received emails from thousands of people sending their heartfelt thoughts, prayers, and positive vibes during this tough and scary time in the pandemic. I can relate. I too, am processing the grief from the loss of what once was considered normal. At the same time, we are trying to manage the immediate impact and what is needed moving forward. We will remain connected and ready to do what we can to support you during this time and will always be available to make a difference. It is a good chance to reflect, build on relationships and do positive things you always wanted to do “if you have time”. Home schooling and working from home is not for everyone, but technology has the ability to connect everyone from everywhere at any time. Although your time and energy might be directed towards managing the changes in your life, it is a learning experience for us all. Keep pushing forward, continue accelerating towards your goals and you can definitely count on having our support. Stay safe.

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SeaPerch Robots

Saturday Academy for STEM involved training students in making SeaPerch robots. SeaPerch is an innovative underwater robotics program that equips students and teachers with the resources they need to build an underwater Remotely Operated Vehicle (ROV). SeaPerch Program provided students with the opportunity to learn about robotics, engineering, science and mathematics (STEM) while building an underwater ROV as part of a science and engineering technology curriculum. STEM Pre-College teams participate in regional and national competitions.

HIGHLIGHTS

GWC: Girls Who Code is a pathway for girls (6–12 grade) who are passionate about making a career for themselves in Technology. STEM Pre-College is committed to career technical education for students. GWC program provides professional training on programming languages such as HTML, CSS, JAVA and Scratch. It is a virtual learning platform.

SPARCS: A collaboration between Star Alliance, UNC Charlotte Department of Computing and informatics, and Pre-College which offers opportunities for middle school girls and boys to learn innovative and integrated computer programming applications.

OPTICS: Dr. Rosario Porras and Optical Students presented Workshop for STEM Pre-College Students.
STEM BLASTERS

YBTC Qualifier: You Be The Chemist Challenge.

Students take a multiple-choice test (called the Challenge Qualifier) provided by CEF at their school and team members’ answers are averaged to determine each team’s score. CEF’s You Be The Chemist Challenge is a collaborative, multilevel academic competition that celebrates the science of chemistry and elevates STEM careers.

Radiology On February 1, 2020, students participated in a virtual Radiology presentation. The presentation was focused on three major aspects: How radiology education is a leading edge in medicine, how quality imaging is used for patient diagnostics and radiology surgery simulations. The students also completed a Teen health survey and wellness as well as reflected on careers in radiology within small groups.

Teen Health & Nutrition Symposium

Tracy L. Bonofski, from the Department of Kinesiology, UNC Charlotte presented about teen health, nutrition and exercise science (with focus areas in diabetes, cardiovascular health, plant-based eating and sports nutrition.). The professor also emphasized on Physical Therapy, Occupational Therapy and Physician Assistant programs. Students were involved in multiple interactive activities (Healthy Eating, Food as Fuel, Brain needs Real Food, Building a Healthy Heart through Diet and Exercise).

Optics and Optical Engineering

UNC Charlotte Department of Physics and Optical Engineering conducted a workshop for STEM Pre-College in Optical Engineering and Optics. Interactive hands on activities included interference, diffraction, 3-D projections and black box optics. Students and teachers greatly appreciated the workshop. We are looking forward to future collaborations with the Department of Physics and Optics.

Teach Engineering is a website sponsored by NSF National Science Digital Library program. It is a searchable free online engineering curriculum database for anyone who is looking for elementary engineering ideas. LINK: https://www.teachengineering.org/

Simple Machines by Lance: Lance designed and published over 40 simple engineering projects for students Each has detailed instructions and lesson plan. LINK: https://www.instructables.com/member/LanceMakes/?show=INSTRUCTABLES

Adventures in Math is a site run by Scholastic. It has math curriculums for kids in grades K-8. These math lessons and activities are to help students understand finance, so they grow up being more finance savvy and responsible adults. LINK: http://www.scholastic.com/regions/

Code Academy is a free website teaching students computer coding. It not only teaches students coding concepts via games, but also actual coding languages. link: https://igamemom.com/free-app-learn-programming-codes-with-codeacademy/cod