

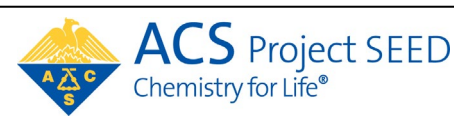
Oct. Bulletin: Project SEED – VA Section

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Authors: Mike Hunnicutt, Sarah Porter

Title: 2019 Project SEED Programs in the VA Section

Two universities in the section participated in the ACS Project SEED program this past summer. The goal for 2020 is to increase awareness and participation in Project SEED at the colleges and universities in the Virginia section.



Summer 2019 marked the inaugural year of Project SEED at Longwood University as a part of the *Longwood Summer Scholars: Exploring Science* program. The program was jointly funded by the ACS and the Army Educational Outreach Program and provided a unique opportunity for high school students in the Southside Virginia region who are historically underserved to participate in a hands-on summer research experience and forge relationships with the faculty and students at Longwood.

Two students from Prince Edward County High School, Abriel Johnson and Antonio Harvey, and two students from Randolph Henry High School, Katelynn McCrillis and Tanea Doswell, participated in the program. They spent eight weeks working with faculty and undergraduates. The Project SEED and Army EOP students carried out college level research, learned laboratory skills in various disciplines, participated in professional development and social activities, prepared a written manuscript of their research, and presented their work at Longwood's Summer Scholars poster session. They also visited the Project SEED program at VCU.



Sarah Porter (chemistry) served as the program coordinator and as a faculty mentor. Two other chemistry faculty, Jonathan White and Benjamin Topham, also served as mentors. The program also provided the opportunity for three senior chemistry majors, Sarah Elsagr, Corri Calandra, and Joshua Walker, to serve as student mentors for the high school students. The plan is to host Project SEED again next year at Longwood based on the first year success!

VCU Chemistry hosted the ACS Project SEED program for the third consecutive year. VCU has hosted 15 students from Richmond Public High Schools over the past 3 years. Summer 2019 marked the first year VCU hosted SEED I and SEED II students. All three SEED II students were accepted to 4-year universities in Virginia and are majoring or minoring in Chemistry. Student cash fellowship awards were sponsored by the National ACS, the local VA ACS, VCU Chemistry, and the Blue Sky Fund.

Similar to the SEED program at Longwood, students worked in a research laboratory under the supervision of a faculty member on a project designed for them in addition to participating in enrichment and college-preparatory activities. The enrichment activities included tours at Afton Chemical and DuPont Protection Solutions, freshman and sophomore level instruction and labs in General Chemistry, Organic Chemistry, and Quantitative Analysis, and 'lunch and learn' sessions

on topics ranging from applying for financial aid, college applications, and meeting the Longwood Summer Scholars students.

The program culminated with poster presentations given by each student. The family, friends, and high school teachers attended and celebrated the SEED students' accomplishments. The student talks were impressive. Each carefully and clearly explained their projects without any notes and using the appropriate vocabulary – remarkable given that these students had only taken one year of high school chemistry. The students also shared their experiences and agreed that although they were at first intimidated or overwhelmed, they now were confident and knowledgeable.

The VCU program involved 10 faculty and 18 graduate students. Mike Hunnicutt and Mychal Smith served as the Program Coordinators with Ashish Nag as the graduate assistant coordinator.

Amazin Bullock (Thomas Jefferson H.S.): SEED II. Attending JMU majoring in Chemistry. Mentor: Dr. Katharine Tibbetts, Ambassadors: Laysa Frias, Karli Kunzler. Project: *Optimization of Palladium Nanoparticle Synthesis in Laser Plasma*

Brian Fogham (Thomas Jefferson H.S.): SEED II: Attending VCU majoring in Chemistry. Mentor: Dr. Mohammad El-Shall, Ambassadors: Hiran Kiriarachchi, Julian Bobb. Project: *Laser Synthesis of Palladium Nanoparticles Supported on Iron-base Materials for CO Oxidation*

Milan Marsh (Open H.S.): SEED II: Attending U.Va. majoring in Math with Chemistry minor. Mentor: Hani El-Kaderi, Ambassadors: Shamara Weeraratne. Project: *Design Synthesis of Redox-Active Polymers for Sodium Battery Application*

Ellie Leon-Vitervo (George Wythe H.S.): SEED I Mentor: Christopher Kelly, Ambassadors: Anthony Le. Project: *Synthesis of a Homoallylic Tosylate to Evaluate Photoredox Processes*

Bre'Shon Dunson (Thomas Jefferson H.S.): SEED I Mentor: Joshua Sieber, Ambassadors: Samantha Gargaro. Project: *Pd-Catalyzed Cross- and Homocoupling of Fluorinated Arenes*

Brian Marsh (Open H.S.): SEED I Mentor: Dr. Mohammad El-Shall, Ambassadors: Mrinmoy Das. Project: *Photocatalytic Degradation of Atrazine by Palladium-Doped ZnIn Metal Organic Framework Catalysts*

