NASA Langley Research Center hosts Virginia Earth Systems Science Scholars students

---

Mission Statement: *The Virginia Earth System Science Scholars (VESSS) program is an interactive online science, technology, engineering and mathematics learning experience for Virginia high school juniors and seniors, highlighted by a seven-day residential summer academy at NASA Langley Research Center in Hampton, Virginia.*

VESSS students pose for a group picture with mentors and program coordinators

(HAMPTON, Va.) The Virginia Earth System Science Scholars program (VESSS) hosted its summer academy at NASA Langley Research Center from the 16th-20th of July. The VESSS program is an interactive online Earth system science, technology, engineering and mathematics learning experience for Virginia high school juniors and seniors, highlighted by a seven-day residential summer academy at NASA's Langley Research Center (LaRC) in Hampton, Virginia. Students chosen to participate in the program are able to have interactions with NASA scientists, engineers and technologists. The students were tasked with planning and executing a mock NASA mission, and then presenting it to a board of scientists and engineers for scrutiny.

VESSS is a partnership based program between the Virginia Space Grant Consortium, NASA's Langley Research Center, Hampton University's Center for Atmospheric Research and Education (CARE) and Thomas Nelson Community College. Thomas Nelson Community College provides four transferable dual enrollment college credits to participating students.

Hampton University has a special partnership with NASA LaRC, and they collaborate on many different initiatives throughout the year.

“...One of the activities we pursue under this cooperative agreement with NASA is to create produce the Virginia Earth System Science Scholars program of which this academy is a part of,” said Dr. William Moore, associate professor of atmospheric and planetary science at Hampton University and professor in residence at the National Institute of Aerospace.

Each of the teams were assigned different domains of the Earth; the atmosphere, lithosphere, biosphere and hydrosphere. Each team consisted of 11-12 students assigned to a domain.

Prior to the beginning of the academy, the students had never formally met each other. Yet, they had to be able to work together to complete the space-based earth observation mission.

Lauren Trepp,a member of the hydrosphere team stated, “Launching the rocket will be used to send a satellite up to space so we could take observations globally over coastal areas and ocean areas in addition to the north and south poles, so we can get a vision of the glacial ice forms, how much space they’re taking up, and we can get better measurements over time of where sea levels are rising [and] where they’re going to be in the future.”

NASA’s LaRC scientists and student mentors, higher education faculty, and representatives from the partnering institutions served as panel evaluators to whom the students presented their mission. The evaluators were impressed by the students’ presentation and remarked that the VESSS program allowed the students to apply and communicate the information and knowledge gained throughout the online course and summer academy.

One panel member remarked, “They’re learning soft skills, they’re learning the art of communication, the art of collaboration, the art of learning how to function in a group.”