Summer STEM Institute
Overview

The Summer STEM Institute is a five-day experience for graduated high school seniors offered under the Louis Stokes Alliance for Minority Participation (LSAMP) Program at Valencia College. The focus of the Institute is to provide incoming college students with learning opportunities in science, technology, engineering, and mathematics (STEM) and college success. Through their engagement in the experiences of the Institute, participating students will:

- Discover real-world applications of 21st century science, technology, engineering, and mathematics;
- Interact with STEM faculty, students, and professionals, hear their stories, and build an awareness of the diversity of STEM careers and the paths that lead to those careers;
- Explore their interests and gain motivation to enter into or continue in STEM; and
- Increase knowledge of and readiness to implement strategies to support their success in college and in a STEM or non-STEM major.

Student outcomes related to STEM content will vary by campus, based on the STEM explorations planned and implemented at each site. Each campus planning team will identify the content specific learning outcomes as they articulate the details of the explorations. However, the college-wide Institute Planning Team has identified specific student learning outcomes in the areas of STEM career awareness and motivation and college readiness and success. Through their participation in the Summer STEM Institute, students will:

1. Identify paths to the STEM careers in which they are interested.
2. Develop their knowledge of people, places, and opportunities connected to local/regional STEM careers.
3. Collaborate with other students to complete a weeklong project during the Institute.
4. Design a poster that highlights the STEM content, inquiry processes, skills, and/or career aspirations impacted during the Institute.
5. Draw conclusions about the strategies and resources that will support their college success.
6. Assess their readiness to implement those strategies and access those resources.

Highlights from Summer STEM Institute 2016 include:

- Opening keynote with retired Lockheed Martin engineer; closing keynote with NASA engineer
- Robotics, lasers, and 3-D printing demonstrations

Valencia College is a member of the Central Florida STEM Alliance, funded by the National Science Foundation under the Louis Stokes Alliances for Minority Participation, HRD-1304966, 2013-2016.
- Genetic engineering of bacteria
- Explorations in biology, biotechnology, chemistry, engineering, and physics
- Mobile application development
- Hands-on math
- Tours of labs, learning support, and student services