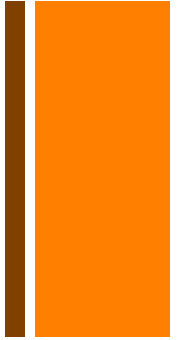


High School Introduction To Engineering Systems (HITES)



University of Tennessee, Knoxville
Travis Griffin

MISSION STATEMENT

The High School Introduction to Engineering Systems (HITES) Program gives incoming eleventh and twelfth grade students who show an interest in engineering studies, an early exposure to and preparation for scientific study and research. The HITES program incorporates many initiatives that focus on hands-on learning, team-building, and college preparatory to assist in recruitment efforts in engineering.

HITES Structure

- Founded in 2001
- Summer residential experience
- 3 main components:
 - **Academic** instruction
 - **Engineering** discovery
 - **Campus** life experience
- Early exposure to and preparation for scientific study and engineering design
- Interaction with faculty, staff, and current students



Application Process

- Completed Application
- Two Letters of Recommendation
 - Math Teacher
 - Science Teacher
- Taken the ACT Math 25/SAT Math 570
- High School Transcript
 - B average or higher in math and science
- Essay Statement

HITES 2014

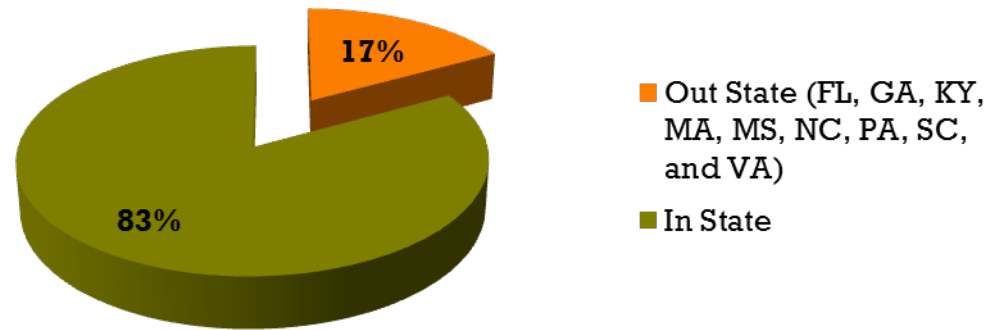


- Sponsored by

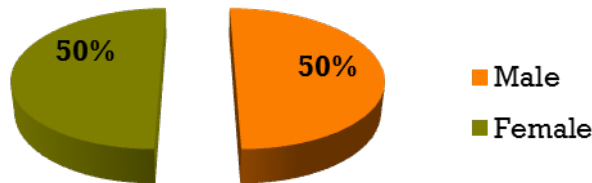
EASTMAN

- Program Make-up
 - Applicants: 103
 - Attended: 36

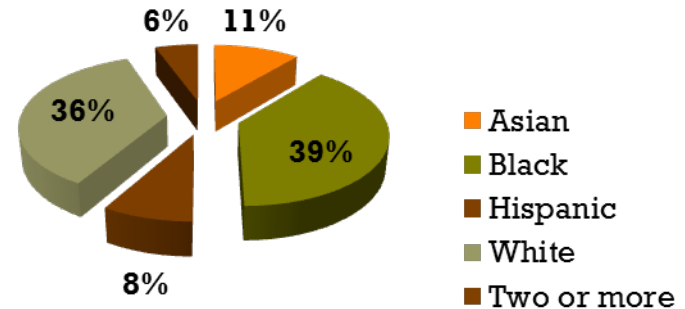
HITES Application Make-up

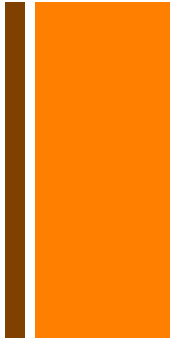


HITES Gender Make-up



HITES Ethnic Make-up





What to Expect...

HITES 2014 Schedule

- Breakfast
- Engineering Design
- Engineering Design Lab
- Lunch/Break
- Engineering Discovery
- ACT Math Session
- Dinner/Downtime
- Project Time
- Lights Out



HITES 2014

Engineering Design

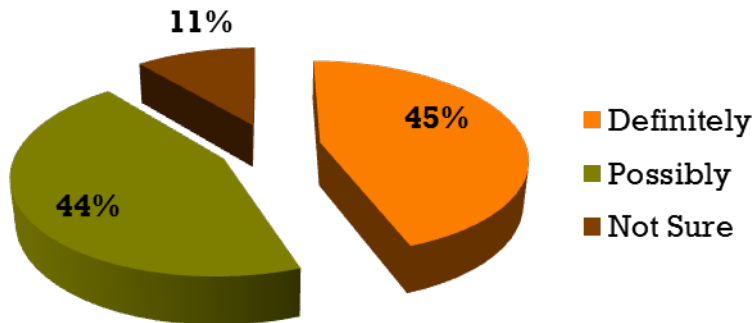
- *Using Computers to Understand the Immune System*
- *Sustainable Fuel and Energy Sources of the Future*
- *Engineering Biology by Design*
- *Tissue Engineering of Heart Valves*
- *Surgical Robotics*
- *The World of Nanoparticles*
- *Bio-inspired Sensing*
- *Inferring Users' Life Behavior with Smartphone Sensing and Computing Technologies*

HITES 2014

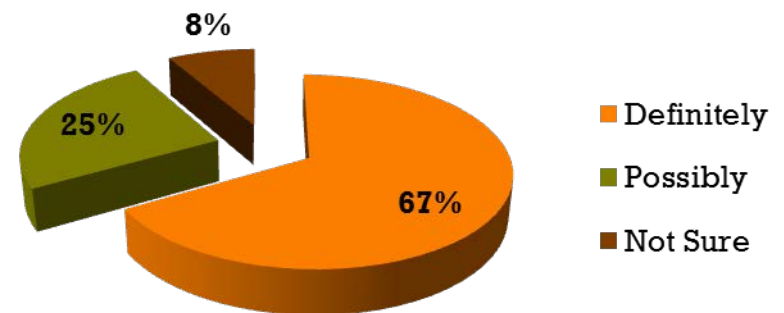
Program Impact



HITES Pre-Survey: Planning to Major in Engineering



HITES Post-Survey: Planning to Major in Engineering

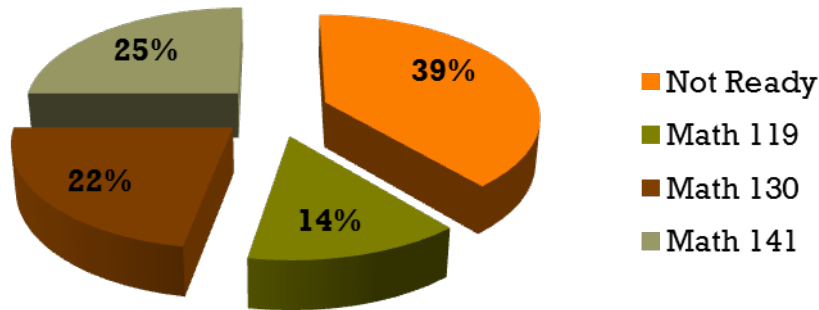


HITES 2014

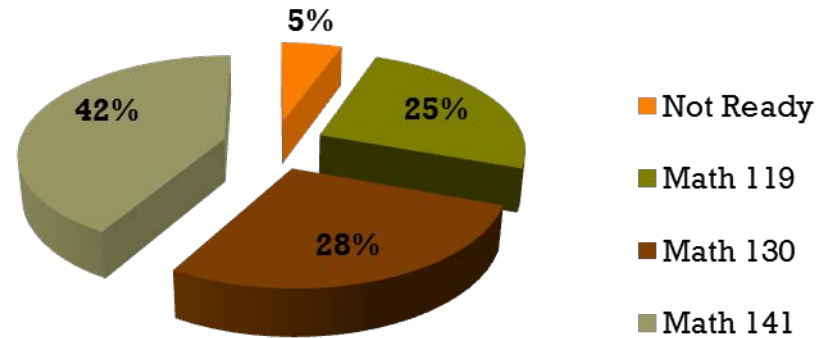
ACT Math Preparation



ACT Pre-Test Math Readiness



ACT Post-Test Math Readiness



HITES 2014

Assessment



■ Strengths

- Engineering In-Lab Design Experience
- Networking with Faculty/Graduate Students/Staff
- Company Tours
- Mentoring experience with undergraduate mentors
- Dining and Residential Hall Experience
- UT application increase

■ Areas of Improvement

- More time for Engineering Discovery
- More experience in computing (C, C++, Python, etc.)
- ACT Development
- Increase Campus Life experience
- Unique development sessions: Juniors and Seniors
- UT Scholarship Offering

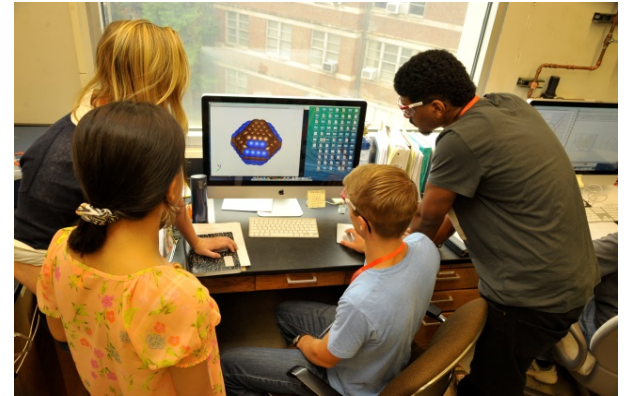
HITES¹¹ 2015 Schedule

- Breakfast
- Computing 101
- Computing Design
- Lunch/Break
- Computing Design Lab
- Computing Discovery
- Dinner/Downtime
- Project Time
- Lights Out



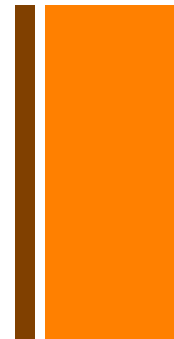
HITES¹² 2015 Schedule

- Breakfast
- Engineering Design
- Engineering Design Lab
- Lunch/Break
- Engineering Discovery
- College Life 101
- Dinner/Downtime
- Project Time
- Lights Out

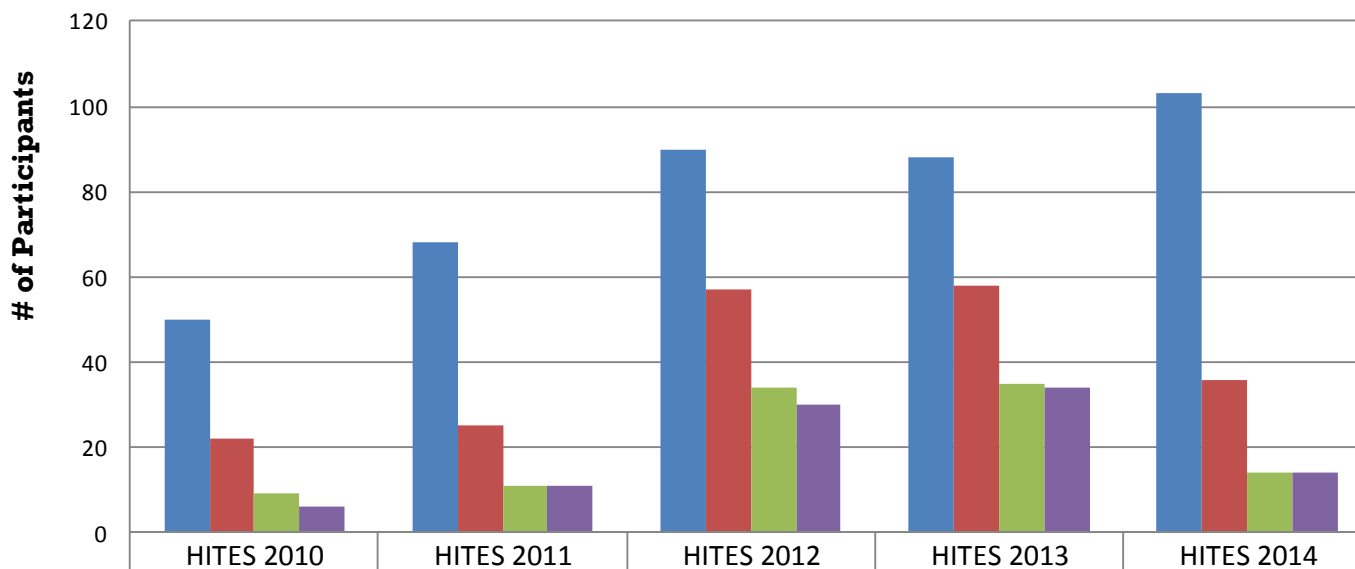


University of Tennessee, Knoxville

HITES Progress

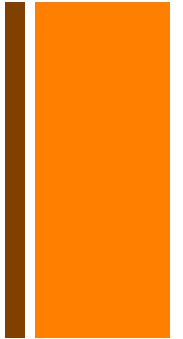


HITES Progress



■ HITES Applications	50	68	90	88	103
■ HITES Participants	22	25	57	58	36
■ UTK Applied	9	11	34	35	14
■ UTK Accepted	6	11	30	34	14

Summer Enrichment Programs 2015



- Middle School Introduction to Engineering Systems (MITES)
 - MITES for 7th Graders: July 26-29, 2015 (Non-Residential)
 - MITES for 8th Graders: June 21-26, 2015 (Residential)

- Engineering Volunteers for Ninth Graders (eVOL9)
 - eVOL9: June 14-19, 2015 (Residential)

- Engineering Volunteers for Tenth Graders (eVOL10)
 - eVOL10: June 7-13, 2015 (Residential)

- High School Introduction to Engineering Systems (HITES)
 - HITES for 11th Graders: July 19-24, 2015 (Residential)
 - HITES for 12th Graders: July 12-17, 2015 (Residential)