



COLLEGE OF
ENGINEERING
Audience

High School Engineering Institute

6/25-6/29, 7/9-13, 7/16-20, 7/23-27

Four separate sessions throughout the summer were attended by 178 total participants with a variety of males and females (42% Minority). The participants ranged from high school sophomores to high school seniors. Students came from different states, as well as other countries, including Puerto Rico, China, and England. They were selected based on GPA, transcripts, and completed applications.

Funding

Participants paid a fee of \$825, which covers all academic sessions, recreational activities, as well as room and board.

Objectives

The program goals are to:

- Expose participants to multiple fields of engineering through hands-on activities, short lectures and lab visits
- Learn about an engineer's everyday work
- Develop teamwork and problem-solving skills
- Introduce participants to the grand challenges of engineering and provide opportunities to work through and solve these problems
- Apply Science, Technology, Engineering and Math (STEM) knowledge to solve problems
- Analyze and interpret data
- Gain research and professional skills through the development of a poster presentation on a specific field of engineering
- Provide participants with an authentic university environment and experience

Description

Intended for rising high school sophomores and juniors seriously considering engineering as their career choice, the program is designed to give in-depth experiences in different engineering majors. Students explored the various fields of engineering through hands-on workshops, problem-solving activities, short lectures by MSU professors and graduate students, lab and engineering research facility tours and presentations. Presentations by the Honors College, Office of Admissions, Office of Study Abroad, The Center for Spartan Engineering (co-op/internship opportunities), and the Engineering K-12 Outreach Office add an additional level of information for participants. Programs include approximately 35 intentional contact hours each session.



Outcomes

Participants completed a post-evaluation and provided the below feedback on several aspects of the program, including academic sessions, college readiness, staff, social activities, and more.

- The highest-rated benefits of the program included a higher understanding of engineering as a whole, getting to meet people different from themselves, and enjoying aspects of STEM on a greater level.
- After participation, 97% of students rated their knowledge of engineering as "Moderate understanding" to "Very good understanding."
- 89% of participants rated the program as "Excellent" or "Good"
- The majority of participants agreed that both College of Engineering faculty and the mentors were helpful and easy to approach, with specific praise given to student mentors.

Participant testimonials:

- "The instructors were relatable and always open to answer any questions we had about college. It was a very welcoming environment"
- "This was a nice camp that finalized my thoughts about what type of engineering I wanted to go into while also being fun and educational. All the mentors and instructors were great people, and I'm happy I've chosen to attend MSU this coming Fall in 2017!"
- "The mentors were a lot of fun and it would have been missing something without their personality, all while keeping the peace"

Additional Significant Information

HSEI staff includes personnel from the office of Recruitment & K-12 Outreach, professors from different departments, graduate and undergraduate student mentors. The engineering sessions provide a great opportunity for prospective students to explore engineering at MSU and connect with faculty.

Contact Information

Luis Donado
Assistant Director for Recruitment & K-12 Outreach,
Summer Program Coordinator
428 S. Shaw Ln, Room 3200 Engineering Building
East Lansing, MI 48824
Phone: 517-353-7282
Email: donadoto@egr.msu.edu

MICHIGAN STATE
UNIVERSITY

Website: <http://www.egr.msu.edu/future-engineer/programs>