



## MST@MSU Math, Science, & Technology July 8—July 13, 2018

### Audience

The Math Science Technology at Michigan State University (MST@MSU) Program is a one-week summer residential and commuter program for academically talented students who have completed grades 7 or 8. The eligibility criteria are: ACT Math score of 18 or Composite of 19, or SAT score of Math or Critical Reading 500 or Combined Total of 980. In 2018, a total of fifty-two (52) students participated; thirty-two (32) males and twenty (20) females; twenty-four (24) 7th graders, twenty-eight (28) 8th graders.

### Funding

MST@MSU programming and scholarships are funded by the W. B. and Candace Thoman Foundation and the Dorothy Lawshe Endowment. Student tuition covers the remaining program costs. Five (5) students were awarded financial aid scholarships.

### Objectives

The academic focus of the MST@MSU program is on mathematics, science, technology and the applications in these areas. The goal is to match the intellectual abilities of talented adolescents with rigorous and challenging coursework which provides enrichment, but does not duplicate coursework that is part of the regular K-12 school curriculum.

MST@MSU offers opportunities for students

- \* to experience active learning as they investigate problems that can be solved through a better understanding of mathematics, science, engineering, and technology
- \* to focus on intensive areas of study that allow for interdisciplinary research using tools of mathematics, science, and technology
- \* to link the tools of many career fields while focusing on real world problems

### Description

MST@MSU students select two academic courses and one special workshop to attend each day for the one week of this residential and commuter program. Classes are held on the MSU campus, using campus classrooms, labs and special facilities. Taught by MSU faculty who were assisted by area high school teachers, students participate in two-hour lectures/labs in the morning and afternoon, followed by a 90 minute special workshop. There were thirty-one (31) instructors, and nine (9) residential supervisory staff.

Each evening has fun evening activities scheduled for the group. Students went ice skating at the Munn Arena, visited the Abrams Planetarium, used of the IM pool and gymnasiums plus nightly activities planned by the program on-site coordinators and residential assistants. Students have 24/7 supervision in the dorm, to and from class, and during the evenings.

### Outcomes

- \* 98% of students rated the program as Excellent or Good
- \* 96% of students said they would attend another GATE program in the future.
- \* 97% percent of parents stated that the program provided a learning experience that is not available at their child's school.

### Parents were asked about the impact the MST program had on their child. Responses included:

"The ability to sit down and discuss topics and questions with advanced level teachers. This is definitely missing at the normal school time during the year. Talking to doctorate personnel was the highlight of several days".

"The challenge for the student to discover unknown parts within their interest areas. It was an real eye-opener for him and he really loved the challenge".

"When my daughter was reunited with the friends she made last year, who she has been texting with on a daily basis since she met them last year, I got teary eyed. My daughter does not have close friends in her school. She really has fun and is happy when she is with the kids she met at MST, who are very much like her and share similar interests. It was really emotional for me to see her connecting with peers she met at MST".

"The opportunity for like minded kids to spend time in a collegiate setting and learn during the summer".

**Academic courses included:** Nuclear Astrophysics, Python, Mechatronics & Robotics: Intro, Biotechnology, JA Titan Business Strategy, Animation: Concepts, Chemistry

**Workshops included:** Debate Astronomy, Composing Electronic Music, Creative Writing, Debate

### Additional Information

2018 was the 29th year for the MST@MSU program on the MSU campus. The program drew students from Illinois, Ohio, and Indiana.

### Contact Information

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