



## MST@MSU

### Math, Science, & Technology

July 9—July 22, 2017

#### Audience

The Math Science Technology at Michigan State University (MST@MSU) Program is a two-week summer residential and commuter program for academically talented students who have completed grades 6-9 with a minimum age of 12. The eligibility criteria are: ACT Math score of 21 or Composite of 23, or SAT score of Math or Critical Reading 530 or Combined Total of 1010. In 2017, a total of ninety-six (96) students participated; fifty (50) males and forty-six (46) females; eight (8) 6th graders, thirty-two (32) 7th graders, thirty-two (32) 8th graders and twenty-four (24) 9th 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. Seven (7) 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 session clinic to attend each day for the two weeks 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 clinic. There were thirty-six (36) instructors, and fourteen (14) residential supervisory staff.

Each evening has fun evening activities scheduled for the group. Students attend 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

- \* 95% of students rated the program as Excellent or Good
- \* 97% of students said they would attend another GATE program in the future.
- \* 97% percent of parents rated this program as Excellent

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

"My child was thrilled to be doing real science in a lab setting. Her takeaway was that science isn't done yet, there are many things yet to be discovered, and this has inspired her to study science more!"

"He has really enjoyed working with college professors at MST @ MSU. He feels like he is a 'college student' in a sense. Being on the campus has helped him decide that he wants to attend MSU for undergrad."

"My daughter said she learns more here in two weeks than all year in school. It absolutely fires her up and she loves meeting other kids like her yet with distinctly different lives. Her confidence sky rockets after this every year."

**Academic courses included:** Microbiology, Forensic Science, Entrepreneurial Math, Competitive Math, Game Design 101, Animation, Chemistry, Physics, Physiology, Nuclear Astrophysics, Engineering 101, Mechatronics, and Neuroscience

**Workshops included:** Debate 101, Yoga, Anime and Manga, Writing, GIS, Visual Art, Music, Archery, GATE Girl

#### Additional Information

2017 was the 28th year for the MST@MSU program on the MSU campus. The program drew students from Wisconsin, Connecticut, Illinois, Ohio, Colorado, and Virginia, as well as Michigan.

#### Contact Information

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