

Math-Science-Technology at Michigan State University



2013
MST@MSU
Participants,
Instructors, &
RAs

Audience

The Math Science Technology at Michigan State University (MST@MSU) Program is a two-week summer residential program for academically talented students who have completed grades 7-9 with a minimum age of 12. The eligibility criteria were: ACT Math score of 21 or Composite of 23, or SAT score of Math or Critical Reading 530 or Combined Total of 1010. In 2013, thirty-one (31) males, and nineteen (19) females were in the program; nineteen (19) 7th graders, twenty (20) 8th graders and eleven (11) 9th graders. Eight (8) students were low-income students.

Funding

MST@MSU programming and scholarships are funded by the MSU Provost, the W. B. and Candace Thoman Foundation, and the Dorothy Lawshe Endowment. Student tuition covers the remaining program costs. Eight (8) low-income students were awarded 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 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. Ten (10) MSU faculty provided instruction.

Each evening has time scheduled for homework, presentations or use of campus facilities. Students attend a presentation by the Honors College on college preparation for high school, an evening at the MSU Observatory, the Abrams Planetarium, use of the IM pool and gymnasiums plus nightly activities planned by the program on-site coordinators and residential assistants. Students are placed in groups of ten, with 24/7 supervision in the dorm, to and from class, and during the evenings. Total contact time: 53 hours

Outcomes

Students completed a post-program evaluation on the last day of classes.

- * 90% rated the MST@MSU program excellent or good
- * 88% stated that the program made them excited to go to college
- * 92% of the students responded that the program better prepared them for college
- * 88% of the students responded that this program increased their knowledge of the different majors, career paths, and opportunities available at MSU

Forty-nine (49) students completed an optional gender/ethnicity form.

- * 30 were Caucasian, 4 African American, 11 Asian and 4 responded Other.

When asked what their child enjoyed most at MST@MSU, some of the comments submitted by parents were:

“The classes were interesting and offered curriculum not available at my school.”

“Very well organized, challenging programs, very good mix of programs and social activities.”

Academic courses include: Astronomy, Digital Photography and Filmmaking, Genetics & Biotechnology, Mathematical Explorations, Engineering, Nuclear Astrophysics, and Physics

Special session clinics include: basketball, creative writing, Flash I, Flash II, soccer, and visual arts.

Additional Significant Information

2013 was the 24th year for the MST@MSU program on the MSU campus. The program drew students from Alabama, Illinois, Louisiana, and Ohio.

Contact Information

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