

# MST@MSU Math, Science and Technology July6—July19, 2014

#### **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 2013, fifty-two (52) males, and twenty-nine (29) females were in the program; eight (8) 6th graders, twenty-eight (28) 7th graders, thirty-five (35) 8th graders and ten (10) 9th graders. Fifteen (15) students received financial aid to attend the camp.

#### **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. Fifteen (15) 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 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 eighteen (18) instructors.

Each evening has time scheduled for homework, presentations or use of campus facilities. Students attend a presentation by the Honors College on college, 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.



2014 MST@MSU Participants, Instructors, & RAs

### **Outcomes**

- \* 90% of parents stated their child enjoyed the program
- 80% of parents stated that their child enjoyed the residential option of this program
- 90% of parents rated the overall quality of the program as Excellent

One parent stated, "Having my daughter ask to go to the library as soon as she got home so she could "Kick it up a notch" and catch the students that were so far ahead of her! Before she had always been the smartest in the group, now she feels behind and is eager to take the lead back!"

## Students completed an optional gender/ethnicity form.

\$ 59% were Caucasian, 12% African American, 18% Asian, and 11% 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:** Radio Dramas, Nuclear Astrophysics, Math is Smart, Experience Engineering, Phenomenal Physics, Genetics and Biotechnology, Website Design and Building

**Special session clinics include:** Advanced Robotics, Young Authors, Melodic Potpourri, Astronomy, Studio Arts, Soccer

## **Additional Significant Information**

2014 was the 25th year for the MST@MSU program on the MSU campus. The program drew students from China, Florida, Texas, and Georgia

#### **Contact Information**

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