About the SEMAA Program

Established in 1993 by Cuyahoga Community College and NASA’s Glenn Research Center, SEMAA (Science, Engineering, Mathematics & Aerospace Academy) provides K-12 grade students with a better understanding of and a greater appreciation for science and mathematics. Although SEMAA is committed to serving historically underrepresented students and their families, the program is open to all students.

Meeting on Saturday mornings during the academic year, SEMAA students are actively engaged in a hands-on, inquiry-based, cooperative learning environment that allows students at every level to learn by doing.

In addition to its Saturday morning program, SEMAA also offers several outreach programs at local elementary schools and community centers. These unique programs pair students with a parent or guardian in a fun, exciting learning environment where they experiment, problem-solve, and ultimately learn together.

Registration Information:
SEMAA invites all students entering grades K-12 to be a part of the SEMAA program. SEMAA offers its classes in three repeating 8-week sessions (Fall, Winter and Spring) during the academic year, with additional classes offered during the summer months. During the academic year, classroom sessions are held on Saturday mornings from 10am until 2pm on the campus of Morgan State University. All programs are free of charge.

To register for the next available SEMAA session, call (443) 885-3304/3307; Fax (443) 885-8265 or go to https://www.morgan.edu/semaa
WORKSHOP OPTIONS

Each of our Astronomy On Wheels programs features STARLAB, a portable planetarium that can bring the constellations of the nighttime sky into your classroom, office or community center. STARLAB can show the night sky, phases and position of the moon, and the locations of the visible planets. It can also accurately demonstrate the changing of sunrise and sunset with the seasons. Simply choose the program(s) that are right for you. Your program options include:

☐ Star Tales – this program introduces students to the most recognizable constellations and to the myths associated with them. (Recommended grade level: K-3)

☐ The Sky Tonight – planetarium staffers will set the STARLAB to view the stars and visible planets as they will appear on the evening of the program. This program also looks at the visible constellations and the myths associated with them. (Recommended grade level: All)

☐ Our Place In Space – using the Earth as a starting point, students will uncover amazing facts about the sun and each of the planets in our solar system. (Recommended grade level: 4-6)

☐ It’s Just a Phase – by using their observation skills, students discover why the Moon appears to change shape each month. Students will also learn to identify the various phases of the moon. (Recommended grade level: 4-6)

☐ The Biological Cell – by observing this one million-time magnification of a composite cell demonstrates the workings of a one-celled organism, students will learn about the processes of cellular digestion and reproduction illustrated in vivid color. Students will identify Endoplasmic reticulum, ribosomes, mitochondria, the Golgi complex, secretion vesicle, lysosomes, pinocytic vesicles, microvilli, cilia, chromosomes and nucleolus as they are clearly displayed. (Recommended for grade level: 7-12)

☐ A Reason for the Seasons – using the scientific method to measure and predicting the location sunrise and sunset during the winter and summer solstice and the vernal and autumn equinox, students will later use this data to graphically demonstrate how the Earth’s tilt effects the seasons! (Recommended grade level: 5-6)

RESERVATIONS AND FEES

STARLAB can accommodate on class of up to 25 students at a time. Each presentation will last approximately 40-45 minutes. SEMAA staff can give a total of 6 STARLAB presentations per day.

STARLAB is available for both half-day and full-day sessions. Our trained STARLAB presenters will work with you to find a suitable date and to help customize your program to fit your unique needs.

☐ Half-Day Session (1-3 presentations) $175
☐ Full-Day Session (4-6 presentations) $250

ABOUT THE PROGRAM

The Science, Engineering, Mathematics & Aerospace Academy (SEMAA), through a grant from the National Aeronautics and Space Administration (NASA), announces the launch of Astronomy On Wheels, a traveling educational outreach program designed to bring the wonders of astronomy to the classroom.

The Astronomy On Wheels program features STARLAB, a portable planetarium that enables students to study astronomy within the comfort and safety of the classroom. Since all STARLAB programs are live, they are easily adaptable for your students’ needs and background level.

The STARLAB consists of an inflatable dome and a sophisticated projector. The projector accurately simulates the nighttime sky by projecting over 3,000 stars onto the interior of the STARLAB dome. Each star is accurate in magnitude and also in location.

The STARLAB is a portable teaching environment that can be brought right into the classroom. It consists of an inflatable dome, a projector, projection cylinders, and optional accessories.