

Course Description

Aeroscience 2 introduce students to advanced air- and spacecraft functions, design, manufacturing and flight operations. Building on their Aerospace Science 1 knowledge, students learn supersonic design and propulsion, propellant manufacturing, inertial navigation, GPS tracking, and telemetry. All students must have instructor approval to take the course. The capstone project rocket is 16-25 feet tall, weighs 600-800 pounds, carries a 35-pound payload to a 20-mile target altitude and is launched in July. Students accepted into the course agree to work 12-20 nights or non-school days during the school year and daily from the end of school until the July launch, as necessary, to complete the project. Other projects may include cube- or nano-satellite development.

Certifications and Licensing

OSHA (Re-test fee is \$20)	No Cost
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Materials and Fees

Mandatory	
HCTC polo shirt for field trips & special events. Payment is due the first week of school	\$20
National Association of Rocketry membership. Payment is due the first week of school	\$25
Student Provided	
- QUAD RULED Composition Notebook - 200 pgs, 9.75" x 7.5" or larger. Spiral notebooks and ringed binders are unacceptable. Available at Walmart or Target	~\$2
- Protractor, compass, and 12-15" ruler. Available at Walmart or Target	~\$7
Contests and Travel	
<ul style="list-style-type: none"> Systems Go Rocket Launch – May, 2018 Team America Rocketry Launch – Spring, 2018 	TBD
Optional (i.e., Student Funded Trips; Fees are Mandatory if a Student Attends)	
International Space Settlement Design Competition, NASA, Houston	\$200
<ul style="list-style-type: none"> US qualifying round mimics a real engineering project to design a vehicle to transport 10,000 colonists to Mars More funds will be needed if the student wins and is selected for the international competition. Prior international competitions were at Kennedy Space Center, FL 	

Transportation

EMS ISD provides daily transportation between HCTC and the home campuses. Students may drive personal vehicles to and from HCTC with a signed parent/guardian transportation form and a proof of automobile insurance on file at HCTC. HCTC will issue no-cost parking passes after receiving both items. Students are not allowed to transport other students during the school day.

It is the policy of the Eagle Mountain-Saginaw ISD not to discriminate on the basis of race, color, national origin, gender, or handicap in its Career and Technology Education programs, services, or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended. Eagle Mountain-Saginaw ISD will take steps to assure the lack of English language skills will not be a barrier to admission and participation in all educational and Career and Technology Education programs.

Es norma de Eagle Mountain-Saginaw Independent School District no discriminar por motivos de raza, color, origen nacional, sexo o impedimento, en sus programas, servicios o activades vocacionales, tal como lo requieren el Titulo VI de la Ley de Derechos Civiles de 1964, según enmienda; el Título IX de las Enmiendas en la Educación, de 1972, y la Sección 504 de la Ley de Rehabilitación de 1973, según enmienda. Eagle Mountain-Saginaw Independent School District tomará las medidas necesarias para asegurar que la falta de habilidad en el uso de la lengua inglés no sea un obstaculo para la admisión y participación en todos los programas educativos y vocacionales.