

Course Description

The Aerospace Science courses provide an overview of air- and spacecraft history, functions, design, manufacturing and flight operations. Students learn aeronautical design, electro-mechanical controls, tracking and propulsion for air and space flight. They learn engineering is designing to meet people's needs using engineering processes under time constraints and budgets mimicking industry processes. Projects include Mid- and High-Powered (MPR & HPR) rockets and possibly quadcopters, lighter-than-air, and sub- to hypersonic aircraft.

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
Contest and Travel	
<ul style="list-style-type: none"> Systems Go Rocket Launch in Fredericksburg - May, 2018 Team America Rocketry Challenge (TARC) - Spring, 2018 	TBD
Optional (Student funded trips; Fees are mandatory if student attends)	
International Space Settlement Design Competition, NASA, Houston	\$200
- US qualifying round mimics real engineering project to design a vehicle to transport 10,000 colonists to Mars or habitat on Mercury	
- 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 actividades vocacionales, tal como lo requieren el Título 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 obstáculo para la admisión y participación en todos los programas educativos y vocacionales.