

# Science, Technology, Engineering, and Mathematics Career Cluster

The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

## Geospatial Engineering and Land Surveying – Texas A&M University – Corpus Christi



The Geospatial Engineering and Land Surveying regional program of study focuses CTE learners on the development of skills in surveying, automated computer aided drafting, geographical information systems and raster-based geographic information systems. This regional program of study also includes exploration into remote sensing, geoscience and mapping.

### High School Courses

#### Level 1

- Principles of Applied Engineering

#### Level 2

- Geographic Information Systems (GIS)

#### Level 3

- Scientific Research and Design

#### Level 4

- Practicum in STEM

### Postsecondary Opportunities

#### Associates Degrees

- Survey Technology/Surveying

#### Bachelor's Degrees

- Civil Engineering
- Geoscience

#### Master's, Doctoral, and Professional Degrees

- Civil Engineering
- Geoscience

### Work-Based Learning and Expanded Learning

Exploration Activities	Work-Based Learning Activities
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- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>Participate in SkillsUSA competitions</li> </ul> | <ul style="list-style-type: none"> <li>Intern at a surveying firm</li> </ul> |
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### Industry-Based Certifications

- Autodesk Associate (Certified User) AutoCAD



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Cartographers and Photogrammetrists	\$58,926	162	27%
Surveyors	\$56,326	333	9%
Surveying and Mapping Technicians	\$40,477	806	9%
Geoscientists, Except Hydrologists and Geographers	\$121,368	855	9%
Survey Researchers	\$48,485	84	31%

Successful completion of the Geospatial Engineering and Land Surveying regional program of study will fulfill requirements of the Business and Industry or STEM endorsement if the math and science requirements are met. Revised – August 2022