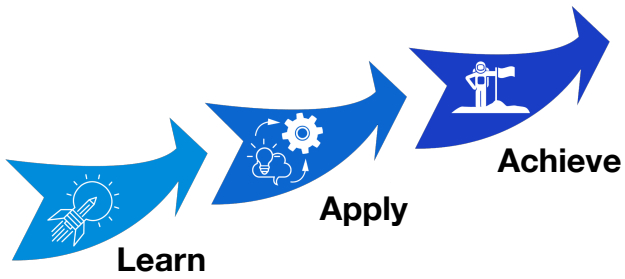
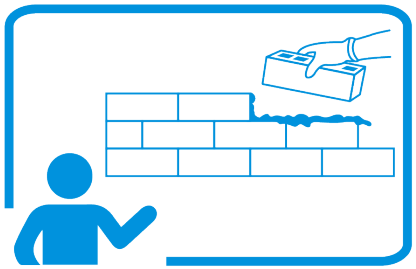
About Us

Teaching Science and Technology, Inc. (TSTI) and Orbital Space specialize in enhancing systems engineering proficiency tailored to the space industry. Our global clientele benefits from top-tier short courses and workshops designed to elevate space systems engineering and program management skills.

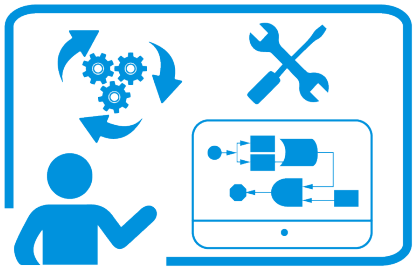
Our dynamic, hands-on teaching approach is rooted in real-world scenarios and interactive learning experiences. Whether launching early career professionals into the space sector or honing the skills of seasoned experts, our courses deliver the essential processes, tools, and insights to accelerate your journey in space engineering.

Our Courses…

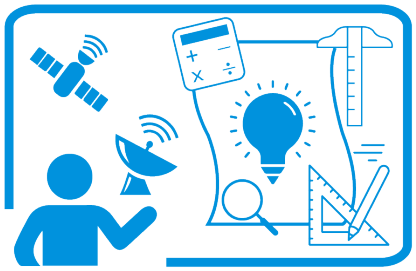




Foundational Training



Tools and Techniques



Applications

Find out more at tsti.net

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TSTI

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World leaders in technical workforce development to the space industry and beyond…

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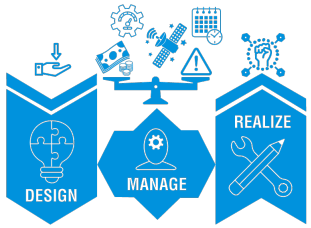
Understanding Space

This course delivers the “big picture” of space missions from concept through operations. Why do we go to space? What types of missions are conducted? How are space missions organized, managed and operated?

Applied Space Systems Engineering

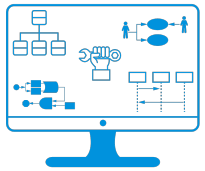


This course is aimed at practical, hands-on application of systems engineering tools and processes that can be realistically applied within your project environment to produce effective systems.

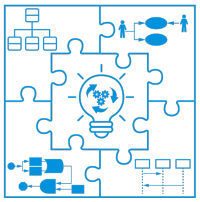
Designing Space Missions and Systems

This course examines the real-world application of the entire space systems engineering discipline. Using a process-oriented approach, the course starts with basic mission objectives and examines the principles and practical methods for mission design and operations in depth.

Applied Model-based Systems Engineering



This course providing a broad introduction to the what, why and how of the processes, practices, tools and techniques that comprise the emerging discipline of model-based systems engineering (MBSE).



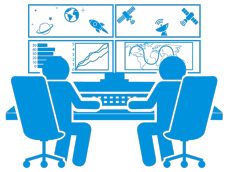
Essential Model-based Systems Engineering

What is Model-based Systems Engineering (MBSE)? How will it improve my project products and processes? Why is it worth the investment? These and other key questions are explored in the 1-day Essential MBSE course.

Integrated CubeSat Engineering Workshop

This course examines the application of Systems Engineering tools and techniques that will provide participants with the necessary skills, industry standards, information, and tools necessary to plan and implement a credible CubeSat Development Program. Emphasis is on practice over theory using a fully-functional (hardware and software) desktop (non-flight) CubeSat as the system of interest.

Space Mission Operations

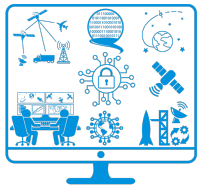


This course takes a functional approach to provide an in-depth view of the entirety of space mission operations. This includes the concept of operations and all functions that are performed in support of a space mission.

System Verification and Validation

This course provides participants with the processes, industry standards, information, and tools necessary to implement or evaluate a credible verification and validation program. Emphasis is on practice over theory using a fully-functional (hardware and software) desktop (non-flight) 3U CubeSat - EssentialSAT (ESat) as the system of interest.

Space Domain Cybersecurity



This course examines the practical issues of developing and sustaining a secure cyber environment through all phases of the space mission lifecycle. The course is organized around the SPAce Domain Cybersecurity (SpaDoCs) Framework.