



# ‘Teach STEM Like an Astronaut’ Professional Development Workshop

No human understands real world and out of this world applications of STEM better than an astronaut!

Wondering how you can enhance the STEM efforts in your school?

Whom better to get assistance from than the tandem of a former NASA astronaut and NASA-Certified Master Science Teacher?

This is exactly what you’ll get with OneOrbit’s “Teach STEM Like an Astronaut” Professional Development program. Available as a half-day course, this workshop is designed for all educators to be able to bring STEM education to new heights, no matter their classroom.



## “Teach STEM Like an Astronaut” Workshop



The workshop kicks off with an awe-inspiring presentation from Dr. Chiao – highlighting innovation and technology trends for future generations specifically geared to educators and how to incorporate this information into the classroom.

Dr. Chiao explains a world in which technology is accelerating more quickly than ever before, and how the skills learn through STEM can be an exciting pathway to success for the next generation.

After being inspired, educators will learn new STEM content from ISS Commander and NASA Master Teacher through the OneOrbit curriculum which goes BEYOND just motivational and informational lessons

Educators will be led through HANDS-ON, fun and educational STEM and team building activities which are part of the OneOrbit STEM Curriculum.

The OneOrbit STEM Curriculum dives deep into the following topics:

- Astronomy
- Earth Science and Satellite Missions
- Spaceflight Human Factors (Biology)
- Rocketry
- Space Technology
- Future of space travel

Educators will experience one or more of these lessons as hands-on experiences.

## Going Beyond the Workshop

All remaining OneOrbit STEM Curriculum lessons not done as hands-on lessons will be described in detail so they can be brought back to classes as experiential lessons for students.

To conclude, all educators will participate in a vibrant discussion of Human Space Exploration, of which, Dr. Chiao is one of the world’s leading experts, and how to bring the lessons of Human Space Exploration into the classroom in creative and engaging ways.



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# Workshop Overview

## Everything that's included in the workshop\*

*\*Half day workshops include hands-on lessons within the curriculum.*

**Positioning Your Endeavor** – Innovation and Technology Trends for Future Generations directed at educators presentation by Dr. Chiao

**'Space and Experiential STEM in the Classroom'** with NASA-certified Master Science Teacher Jami Sunkel

**OneOrbit STEM Curriculum** – Hands-on and experiential lesson topics taught by Jami Sunkel, selected from the following topics:

- Astronomy
- Earth Science and Satellite Missions
- Spaceflight Human Factors (Biology)
- Rocketry
- Space Technology
- Future of space travel

All of the OneOrbit STEM Curriculum lessons are described with an with open discussion of how these lessons can be integrated throughout the school year to broaden the learning.

**NASA, Commercial, and International Space Exploration and How to Implement** – discussion with Dr. Chiao and Jami Sunkel

## Participant Take-aways

- **Excitement and passion for STEM** – regardless of educator's field of expertise
- **New and exciting STEM lessons** – with direct application in the classroom
- **Aerospace industry awareness** – current and future trends to share directly with students
- **Deeper understanding of STEM and the engineering design process** – for all age groups
- **Increased confidence teaching STEM in the classroom** – and the tools to succeed doing it

## The OneOrbit Team



**Dr. Leroy Chiao** is a former NASA astronaut and international space station commander. He logged 229 days in space over four missions, including six spacewalks. He is a trained engineer and holds academic appointments at both Rice University and the Baylor College of Medicine.

He speaks three languages including Mandarin Chinese and Russian. Dr. Chiao is an advisor to the Houston Association for Space and Science Education.



**Jami Sunkel** is a professional educator and NASA-certified Master Science teacher holding Master's degrees in Curriculum & Instruction as well as Educational Leadership. She has over a decade of teaching experience in the classroom.

Ms. Sunkel also has three years an additional three years' experience as an Education Specialist at the Space Foundation in Colorado Springs, Colorado.

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