

NEW! ONLINE SHORT COURSE

FUNDAMENTALS OF SPACE SYSTEMS

Instructor: Dr. Mike Gruntman

OVERVIEW

This 12-part, 12-hour self-study course provides a broad overview of concepts and technologies of modern space systems which combine engineering, science, and external phenomena. We concentrate on scientific and engineering foundations of spacecraft systems and interactions among various satellite subsystems. The basic nomenclature, vocabulary, and concepts are introduced and will make it possible to interact with understanding with various subsystem specialists. This popular course - equivalent to a two-day in-person short course - has been taught for many years in conjunction with AIAA conferences and is offered here online for the very first time.

KEY TOPICS

- Solar system, space environment, and interactions
- Basic of orbital mechanics, common orbits, and space mission geometry
- Overview of space mission design
- Rocket and spacecraft propulsion and space launch systems
- Attitude determination and control
- Spacecraft communications
- Power and thermal control subsystems
- Space missions and applications



AUDIENCE

This overview course is designed for engineers and managers – of diverse backgrounds and varying levels of experience – who are involved in planning, designing, building, launching, and operating space systems, spacecraft subsystems and components, and payloads. The course will facilitate integration of engineers and managers new to the space field into space-related projects.

DETAILS

DATE/TIME: On-Demand 24/7

COST: *AIAA Member Price: \$595 / AIAA Student Member Price: \$395 / Non-Member Price: \$795*

MATERIALS: Streaming Videos; All lecture notes (282 Pages in PDF Format) available for download.

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