

Videos: ***Space Mission and Spacecraft Design***
Space and Astronautics

Satellite orbits

- [Global Positioning System GPS Constellation](#) (5 min 15 sec)
- [Geostationary Orbit GEO](#) (8 min 54 sec)
- [Regression of Nodes](#) (4 min 20 sec)
- [Prograde, Retrograde, and Sun-Synchronous Orbits](#) (5 min 30 sec)
- [Rotation of Apsides](#) (5 min 40 sec)
- [Molniya Orbit](#) (5 min 10 sec)
- [Molniya Communications Relay](#) (4 min 15 sec)
- [Orbit Circularization by Atmospheric Drag](#) (3 min 50 sec)
- [Effects of Solar Radiation Pressure on Satellite Orbits](#) (6 min 30 sec)

Current events

- [Satellite Launch by North Korea in 2012](#) (18 min)
- [International Space Station: Hole and Leak, August 2018](#) (9 min)

Space and rocket history

- [Space: From Firecrackers to Interstellar Flight](#)
Part 1. The First Thousand Years (71 min); Part 2. Space in 21st century (78 min)
- [The Road to Space. The First Thousand Years.](#) (1 hr 10 min)
- [Ary Sternfeld. A Forgotten Space Pioneer.](#) (25 min)

Space science

- [Interstellar Helium Atom Flux at 1 AU](#) (8 min 09 sec)
- [Energetic Neutral Atom \(ENA\) Imaging: The Next Step](#) (15 min)

Ice ages

- [Ice Ages, Solar System Dynamics and Global Climate Change](#) (3 min 30 sec)

USC Astronautics

- [USC Master of Science in Astronautical Engineering: Overview](#) (53 min)

History

- [History of the United States in Two Minutes](#) (2 min 20 sec)