

SPACE OPERATIONS 2.0

Course Title
Space Operations 2.0

Delivery Mode
Classroom

Location
Singapore

Course Schedule
1 to 3 March 2027 (3-Days)

Pricing
Please contact Space Faculty

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Space - The 2 Trillion-dollar Industry

The rapid commercialisation of space is reimagining how humanity interacts with the final frontier. Future projections suggest that the global space economy may grow to as much as **$2 trillion by 2040**. Once the domain of governments, private companies are expected to take the lead, driving innovation through increased investment and strategic collaboration between commercial and government entities. While the future looks promising, significant risks remain. Several prominent firms have failed.

> **This high-intensity course aims to provide industry executives and policymakers with interdisciplinary background knowledge to guide their governments, enterprises, and their individual careers into the space economy.**



This course is led by Dr. Andrew (Andy) Aldrin, the Executive Director, Space Programs Embry-Riddle World Wide, CEO & President of the Board, Aldrin Family Foundation. He is also Programme Chair and Founder of the Masters of Space Operations and more recently he created the Master of Science in Space Systems. Dr. Aldrin had a distinguished career in industry and government research, including executive positions at Boeing, United Launch Alliance and Moon Express.

PROGRAMME HIGHLIGHTS

The Space Economy

Understand how the space sector has shifted from a government-led, national security focus to a booming commercial industry. Appreciate the different roles of government agencies and private companies in shaping the global and national economies.

Market Dynamics

Analyse the key market drivers for space launch, in-space transportation, and remote sensing. This includes understanding the impact of **reusability**, **cost reduction**, and the new **"data as a service"** business model.

Space and Telecommunications

Explain how space systems fit into the global telecommunications market. You should be able to describe how satellite constellations, both traditional and new, complement and compete with terrestrial networks.

Technical Systems

Explain the core technical principles behind key space systems. This includes:

- **Space Transportation:** The concepts of reusability and rocket engines.
- **Remote Sensing:** The role of **spectral bands** and **data analysis**.
- **Telecommunications:** The importance of **signal strength** and **constellation configuration**.

Policy and Legal Frameworks

Assess the policy and legal constraints that affect space innovation and commercial activities.

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