Space Geopolitics and Satellite Technology Training Course

Professional Development Training Course Outline

Category	Political Science and International Relations	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

This course is designed to provide a comprehensive understanding of the complex and dynamic intersection between **space geopolitics** and **satellite technology**. It will equip participants with the essential knowledge and skills needed to navigate the evolving landscape of the space domain, which is increasingly a central arena for international competition and collaboration. We'll explore how advancements in **satellite communications**, **Earth observation**, and **global navigation satellite systems (GNSS)** are reshaping national security, economic policy, and global power dynamics.

The training will delve into the critical aspects of space law, policy, and strategy, emphasizing the strategic importance of space assets. By focusing on **space security**, **orbital debris management**, and the rise of the **NewSpace economy**, we will prepare participants to analyze and address the challenges and opportunities of the 21st-century space age. Participants will learn how nations and private entities are leveraging **space power** for both civilian and military applications, and how this is creating new challenges for international governance and stability.

Programme Curriculum

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Course Objectives

1. Analyze the **geopolitical implications** of space power and its role in international relations.
2. Understand the core principles of **satellite communications systems** and their global impact.
3. Examine the legal frameworks and treaties governing **outer space activities**.
4. Assess the strategic importance of **Earth observation satellites** for national security and environmental monitoring.
5. Explore the economic drivers and market dynamics of the **NewSpace economy**.
6. Evaluate the threats and countermeasures related to **space cybersecurity**.
7. Analyze the challenges of **orbital debris mitigation** and space traffic management.
8. Understand the role of **Global Navigation Satellite Systems (GNSS)** like GPS and Galileo.
9. Develop a strong grasp of **satellite remote sensing** applications for resource management and disaster response.
10. Explore the dual-use nature of **aerospace technologies** for both civilian and military purposes.
11. Discuss emerging trends in **space resource utilization** and cislunar geopolitics.
12. Identify key actors, from state agencies to private corporations, shaping the **global space industry**.
13. Formulate strategic policies for national and organizational engagement in the space domain.

Organizational Benefits

- Enhance decision-making by understanding the geopolitical risks and opportunities tied to satellite infrastructure.
- Improve risk management related to space-based assets, including cybersecurity and operational resilience.
- Identify new market opportunities in the rapidly expanding commercial space sector.
- Foster international partnerships by understanding global space governance and diplomatic protocols.
- Strengthen policy and advocacy efforts by having an informed perspective on space law and regulation.

Target Audience

1. Defense & National Security Professionals.
2. Government & Policy Makers.
3. Aerospace Industry Executives.
4. Financial & Investment Analysts.
5. Researchers & Academics.
6. Diplomats & International Relations Specialists.
7. Data Scientists & Analysts.
8. Telecommunications Engineers.

Course Outline

Module 1: Foundations of Space Geopolitics

- The History of the Space Race: From Cold War rivalry to modern competition.
- Space as a Strategic Domain: Understanding space power as a tool of national influence.
- Key Actors in Space: The roles of NASA, ESA, Roscosmos, CNSA, and private companies.
- Space Law & Treaties: The Outer Space Treaty and the evolution of international legal frameworks.
- **Case Study:** The Chinese anti-satellite (ASAT) missile test of 2007 and its impact on international relations.

Module 2: Satellite Technology Fundamentals

- Types of Satellites: LEO, MEO, GEO orbits and their applications.
- Satellite Communications: How satellites enable global connectivity, broadcasting, and internet services.
- GNSS & PNT: The technology behind GPS, Galileo, and other navigation systems.
- Satellite Remote Sensing: Principles of Earth observation for climate, security, and resource management.
- **Case Study:** The strategic use of Starlink satellites during the Ukraine conflict.

Module 3: The NewSpace Economy & Commercialization

- The Rise of Commercial Space: SpaceX, Blue Origin, and the shift from state-led to private-led space ventures.
- Space Finance & Investment: Venture capital, IPOs, and the business of space.
- Launch Services & SmallSats: The revolution in low-cost access to space.
- In-Orbit Services: Satellite servicing, refueling, and manufacturing.
- **Case Study:** Analyzing the business model and geopolitical implications of Planet Labs' Earth observation constellation.

Module 4: Space Security & Cybersecurity

- Threats in Space: Debris, ASAT weapons, and kinetic and non-kinetic attacks.
- Space Situational Awareness (SSA): Tracking objects in orbit to prevent collisions.
- Counterspace Capabilities: Understanding offensive and defensive space warfare.
- Space Cybersecurity: Protecting ground stations, command systems, and satellite links from hacking.
- **Case Study:** The 2017 cyberattack on the Viasat satellite network and its geopolitical fallout.

Module 5: Space Governance & Regulation

- International Norms & Cooperation: The role of the UN Committee on the Peaceful Uses of Outer Space (COPUOS).
- Space Traffic Management (STM): Developing rules and regulations for a crowded orbital environment.
- Orbital Debris Mitigation: Policy and technological solutions to the growing debris problem.
- National Space Policies: Comparing and contrasting the space strategies of the US, China, and Russia.
- **Case Study:** The policy challenges of regulating mega-constellations like Starlink and Project Kuiper.

Module 6: Earth Observation & Geopolitical Intelligence

- EO for Security: Using satellite imagery for intelligence, surveillance, and reconnaissance (ISR).
- Climate Change & EO: Monitoring environmental shifts and global crises from space.
- Agriculture & Urban Planning: Applications of satellite data in civil society.

- Big Data from Space: Processing and analyzing vast amounts of satellite data.
- **Case Study:** The use of commercial satellite imagery to monitor military buildups and humanitarian crises.

Module 7: Emerging Trends & Future Geopolitics

- Cislunar Space: The new frontier between Earth and the Moon.
- Space Resource Utilization: The race for lunar and asteroid resources.
- Space Colonization & Permanent Habitation: Long-term strategic implications of human presence in space.
- Hypersonic Weapons & Space: The intersection of aerospace technology and strategic deterrence.
- **Case Study:** The Artemis Accords and the evolving framework for international cooperation in lunar exploration.

Module 8: Strategic Planning & Final Project

- Developing a National Space Strategy: A workshop on formulating a cohesive space policy.
- Investment Portfolio Analysis: A practical exercise on evaluating space companies.
- Strategic Wargaming: A simulation of a geopolitical crisis involving space assets.
- Public-Private Partnerships: Building collaborative models for space initiatives.
- **Final Project:** Participants develop a strategic briefing or policy paper on a contemporary space geopolitics issue.

Training Methodology

This training employs a blended learning approach that combines theoretical knowledge with practical, hands-on application. The methodology includes:

- **Interactive Lectures:** Expert-led sessions with Q&A.
- **Case Studies:** Real-world examples and analysis of key events.
- **Group Discussions:** Collaborative problem-solving and peer-to-peer learning.
- **Simulations:** Practical exercises on satellite operations and policy scenarios.
- **Guest Speaker Sessions:** Insights from leading industry professionals and policy experts.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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