هيئة الاتصالات والفضاء والتقنية
Communications, Space & Technology Commission

Regulation of Space Sector
Course Handbook

أكاديمية التنظيمات الرقمية
DIGITAL REGULATORY ACADEMY

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Regulation of Space Sector

Introduction

Course Level	Level 3 (Professional)
Target Audience	Public policy, engineering and economics professionals in NRC members or the digital sector
Duration	4 Sessions, 0.5 Day
Delivery method	In person
Pre-requisite	Introduction to Public Policy

'Regulation of Space Sector' is an essential training resource for professionals seeking to deepen their knowledge of space governance and resource management. This course is particularly beneficial for individuals working with space operators, regulatory bodies, and organizations engaged in space activities.

The 'Regulation of Space Sector' course equips participants with insights into the key legal frameworks, policies and resources that shape and enable sustainable space activities.

Learning Objectives

1. Understanding the fundamental aspects of the space sector, including its structure, key players, and areas of growth.
2. Explore sustainability challenges in space activities and the importance of responsible resource management.
3. Examine national space laws and policies, focusing on regulatory frameworks and licensing processes.
4. Understand the role of spectrum management and the ITU in coordinating global space activities and preventing interference.
5. Analyze the legal, policy, and financial challenges facing new space.
6. Evaluate emerging trends in space governance and the need for adaptive regulatory frameworks to address future challenges.
7. Recognize the importance of international cooperation and multilateral efforts in shaping the future of space governance.

Course Outcomes

The course outcomes are designed to ensure participants gain a comprehensive understanding of the regulatory frameworks and policies that govern the space sector.

1. Apply knowledge in real-world scenarios: participants will be equipped to apply their learning to practical situations, including managing sustainable practices in space activities, navigating national and international regulatory frameworks, and addressing the challenges of resource utilization.
2. Improve decision-making skills by understanding the implications of space governance, including the economic, environmental, and security impacts of space activities.
3. Develop a thorough understanding of the evolving landscape of the space sector, including emerging trends, critical resources, and the importance of international cooperation in shaping effective governance.

Course Outline

Day	Session	Topic	Schedule
1	Introduction	Course Opening	
	Session 1	Introduction to Space Governance and National Space Law	45 minutes
	Break	---	
	Session 2	Space Sustainability (inc. Group Exercise)	90 minutes
	Break	---	
	Session 3	Spectrum and the ITU (inc. Guest Speaker)	75 minutes
	Session 4	The Future of Space Governance (inc. Guest Speaker + Group Exercise)	2 hours
	Close		

Session 1: Introduction to Space Governance

This first session covers the overview and role of regulatory bodies and national bodies involved in outer space governance to frame the subsequent sessions.

There is a diverse range of responsibilities regarding laws and policies related to outer space activities.

The session will consider:

1. Overview of international space law treaties
2. Roles of international and national regulatory bodies
3. Key events and legal frameworks shaping space regulation
4. Key elements of national space law

Session 2: Space Sustainability

Space might seem infinite, but the challenges of keeping it sustainable are very real. With an increasing number of satellites, space stations, and missions, outer space is becoming crowded. Space debris and environmental impacts are pressing issues that policy makers, industries, and scientists must address to ensure the safe and sustainable use of space. **This session will explore**:

1. Current laws on space debris
2. The role of international bodies
3. Assessing legal frameworks

Session 3: Spectrum and the ITU

This session focuses on the critical role of the radio spectrum in the space sector and the essential function ITU plays in its management. Participants will explore how spectrum, a finite and highly valuable resource, supports global space activities, including satellite communications and space exploration.

The session delves into the ITU's structure and its role in the allocation and regulation of spectrum on a global scale. Understanding the ITU’s Radio Regulations, including the upcoming 2024 revisions, is vital for anyone involved in space policy, satellite industries, or telecommunication sectors.

Effective spectrum management is key to preventing interference, promoting innovation, and ensuring that space and digital markets continue to thrive in an increasingly connected world.

Session 7: The Future of Space Governance

As space activities expand, governance must balance innovation with regulation for safe, sustainable use. This session covers emerging areas in space law, like tourism and resource utilization, while highlighting international efforts to address these challenges and the need for regulations that match the pace of technological advancements.

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Trainer Bios

Mike Thompson

Mike Thompson is Access Partnership's Director for Technical Development. Mike provides technical and engineering support to network operators in the terrestrial and satellite markets. With over 25 years of experience in regulatory engineering, Mike has a long record of providing innovative solutions to market entry, network expansion, and integration problems that arise from hardware limitations, regulatory restrictions, and frequency management problems.

Mike is a chartered engineer (CEng.), and a member of the Institute of Engineering and Technology (IET). He has managed regulatory programmes within a global network operator, including interaction with bodies such as the International Telecommunication Union (ITU), the European Telecommunication Standards Institute (ETSI) and the Conference of European Post and Telecommunications administrations (CEPT). Prior to joining the private sector, Mike was a team leader within the UK Radiocommunications Agency.

Juan Cacace

Juan Cacace is Access Partnership's Director of Government Affairs, and Space and Connectivity Lead. Juan gains market access for new technologies worldwide, by helping companies to comply with regulations as well as obtain licenses and permits for their products & services.

Recently for Access Partnership, Juan served as Project Lead for a project commissioned by Facebook, where he attended conferences to advocate for HAPS, spoke and gave presentations at regional and international forums, drafted collateral, speeches, and presentations for the client, and represented the client at the month-long WRC-19 Conference in Egypt.

Before joining Access Partnership, Juan worked for more than 10 years in the Legislature of the City of Buenos Aires and in the Argentine National Senate. He holds two bachelor's degrees, one in Political Science and another in Law, and an MBA from the University of Cambridge. He works in English and Spanish.

Xochitl Hernandez Medina

Xochitl Hernandez Medina is a Senior Manager in the Space and Connectivity team. Xochitl is an engineer with 13 years of experience in technical and regulatory spectrum planning at national and international levels. She possesses a broad knowledge of regulatory bodies, the private sector, government entities, and licensees. Xochitl is a strategic-minded professional with a strong background in the development of innovative solutions enabling clients to reach their spectrum and technology goals.

She worked for the Mexican Telecommunications Regulator for more than eight years and has contributed to national and international spectrum management and telecommunications technology matters, including the second digital dividend, spectrum policies, compliances to international protocols, spectrum planning, and 5G development, among others. She has managed relationships with government and industry stakeholders regarding their spectrum needs and led ITU-R and CITEL negotiations. Xochitl holds a bachelor's degree in Telematics Engineering from ITAM University and an IT Administration master's degree from ITESM University, both in Mexico. She also holds professional certifications in Security and QoS in Internet Networks, Data Science Ethics, Challenges and opportunities of the digital economy, and Public Policies.

Hamza Hameed

Hamza Hameed is a Senior Manager in Space & Development at Access Partnership, and is based in Singapore. He is a Pakistani lawyer currently serving as the Chair of the Space Generation Advisory Council (SGAC).

Before joining Access Partnership, Hamza worked as a Legal Consultant at the International Institute for the Unification of Private Law (UNIDROIT) in Rome. He led the effort towards establishing an international system of secured transactions law for the space sector, while also advising governments on issues related to spacecraft financing, blockchain law, and crypto law.

Hamza holds an LLM from the International Institute for Air and Space Law at Leiden University. He teaches spacecraft financing at various universities and is a member of the International Institute for Space Law (IISL) and INSOL International.

Hussein Abul-Enein

Hussein Abul-Enein is Access Partnership's Director for the Middle East. Hussein leads a team that supports government clients across MENA. This includes on domestic policy formulation, strategy development and bosting foreign direct investments. As an International Organizations specialist, Hussein leads multilateral elections and policy campaigns, including at the International Telecommunications Unions and other United Nations Organizations.

Prior to joining Access Partnership, Hussein worked at the International Telecommunications Union and the United Nation's Office of the High Commissioner for Human Rights, where he was responsible for the ICT4SDGs initiative. He has provided advisory services for private-sector companies and think tanks on emerging technologies and cyber security.

Hussein conducts business in Arabic, English, and French. He holds an MA in Security Studies from King's College London (KCL) and a BA in International Relations from the Geneva School of Diplomacy (GSD). He's also a visiting researcher and instructor at the Geneva Centre for Security Policy (GCSP), KCL and GSD.

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Thank you

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