

PEL Schedule SSP21

	DATE	TIME	DURATION	DA	TITLE	LECTURER GRX	LECTURER SBX	LECTURER ONLINE	DESCRIPTION	LEARNING OBJECTIVES
SSP WEEK 3 // PEL WEEK 0										
	Wednesday 14 July	15h45 17h15	1h30	DA1	IP Assignment					
		17h15 18h45	1h30				Dimitra Stefoudi Leiden University			
	Friday 16 July	15h45 17h15	1h30	DA2	IP Working session				This Working Session will be dedicated to the preparation of the participants for the final assessment. The instructors will be available to address any questions they may have.	
		17h15 18h45	1h30				Dimitra Stefoudi Leiden University			
SSP WEEK 4 // PEL WEEK 1										
	Monday 19 July	15h45 18h45	3 h	DA3	Introduction to PEL	Tanja Masson-Zwaan Leiden University			Participants will be introduced to the activities of the PEL Department and the method of final evaluation. DA1 will focus on providing an overview of the legal, policy and economic aspects related to space activities, focusing on international developments. In particular, they will elaborate on the evolution of the space age and the genesis of space law and its subjects and sources, as well as the main economic concepts related to the space sector.	<ul style="list-style-type: none"> • Understand the structure of space law and the difference between international and national regulations • Learn the political framework in which space law was introduced and continues to evolve • Understand basic economic issues related to space activities • Become informed about the schedule and deliverables of the PEL Department
							Dimitra Stefoudi Leiden University			
							Christopher Johnson Secure World Foundation			
	Tuesday 20 July	15h45 18h45	3 h	DA4	Space policy and diplomacy			Lulu Makapela Council for Scientific and Industrial Research SA	Policy is the driving force behind the developments in the space field worldwide, from the launch of the first objects and humans into outer space to the	<ul style="list-style-type: none"> • Understand the significance of space policy in the advancement of the space sector • Understand the role of policy in the context of international and

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										recent boom in space data applications and the plans for space resource utilization. The strategies that States draw and follow influence accordingly the shape of their national space sector and their behavior in international fora. National and international space policies are put in place to decide the design or participation to space missions, structuring governance (e.g. implementation structures, institutional arrangements, coordination), the funding of specific projects, as well as the identification of priorities with regard to future activities. Participants will gain an insight in what drives space policy in various parts of the world, seek to understand the possible variables, and use that knowledge to predict future actions.	national law-making process • Reflect on and develop strategies for the achievement and promotion of given activities
Joint with MGB	Friday 23 Jul	9h 12h45	3h	DA5	Legal and business aspects of space resource utilisation	Angel Abbud Madrid Colorado School of Mines			Following the lead of a handful of pioneering private companies, space resource activities have developed considerably in the past five years. Evolving from the debate on the legality of space mining to the acknowledgment of the benefits offered by space resource utilisation, international discussions have equally progressed. This panel will address legal and commercial perspectives of space resource activities from the perspective of private entities, academia and national agencies.	• Understand the technical and business aspects of space resource utilisation, particularly in terms of space mining methods and in situ resource utilization • Analyse the legal aspects of space resource utilisation in conjunction with the principles of non-appropriation of outer space and sharing of benefits for space activities with all countries	
							Antonino Salmeri University of Luxembourg				
SSP WEEK 5 // PEL WEEK 2											
	Monday 26 Jul	All day			group visits						

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Joint with MGB	Tuesday 27 July	9h 12h45	3h	DA6	Export Control Workshop	Veronica La Regina - NanoRacks			<p>Overview: Outer space was initially used for military purposes and to this date it is considered as a strategic domain by most countries. In the meantime, the commercialization of space activities and the use of space technology for civilian purposes is steadily increasing. This nexus between military and civil uses of outer space is a distinct characteristic of the sector and imposes restrictions in the exchange of space technology and cooperation among States. This DA will focus on the legal aspects of military uses of outer space and the prohibitions regarding militarization and weaponisation of outer space, drawing comparisons with examples from current missions. Furthermore, it will explain the concept of dual-use of space object and subsequent control in the export of space technology, particularly with regard to the impact of various export control regimes.</p>	<ul style="list-style-type: none"> • Understand the importance and impact of the adoption of domestic laws for the development of the national space sector • Identify the similarities and differences among various national space laws
		14h 17h45	3h45	DA7	International cooperation in human spaceflight	Jacques Masson European Space Agency		<p>Motoko Mizuno JAXA</p> <p>Emma Lehnhardt NASA</p> <p>Angeliki Kapoglou (TBC) ESA</p>	<p>Outer space is typically subject to intense international cooperation, mainly because of the complex technology and high cost but also as a consequence of the obligations regarding international cooperation in the peaceful uses of space as contained in the Outer Space Treaty. This DA will specifically focus on international cooperation in the field of human spaceflight, notably the International Space Station, the plans for a Lunar Gateway and possible future cooperative projects aiming to establish permanent human settlements on the Moon and Mars.</p>	<ul style="list-style-type: none"> • Learn the underlying policy and legal justifications and constraints of international cooperation • Develop the tools necessary to conceptualize innovative cooperative projects for the future. • Understand the legal tools and mechanisms used to implement international cooperation in the practice of agencies and intergovernmental organisations

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	Wednesday 28 July					Niklas Hedman UNOOSA			<p>The Sustainable Development Goals were introduced by the UN General Assembly in 2015 and comprise of 17 global goals for the improvement of the social, economic and natural environment of the world. The UN Office for Outer Space Affairs has launched actions to support the realization of the SDGs and promote the use of outer space toward this end. Several other space related organisations are drawing strategies setting the SDGs as priority, whereas private companies, especially in the field of Earth observation, are using their services for addressing the said goals. This panel will elaborate on the content of the SDGs and discuss ways in which they can be achieved by means of space technology.</p>	<ul style="list-style-type: none"> • Understand the significance of space policy in the advancement of the space sector • Understand the role of policy in the context of international and national law-making process • Reflect on and develop strategies for the achievement and promotion of given activities
		9h 12h45	3h45	DA8	Space and the UN SDGs		Joanna Ruiter NSO			
	Thursday 29 July							Deepika Jeyakodi Airbus	<p>At this hands-on workshop, participants will learn about legal design, its impact on user experience, and how it can benefit an organization and business relations.</p>	<ul style="list-style-type: none"> • Learn how to introduce simplifying and visualizing documents into contracts • Learn how this can improve the overall understanding and use of a legal document.
		9h 12h45	3h45	DA9	Contracting in space			Jerry Linnemeijer Airbus		
		14h 17h45	3h45	DA10	National legal frameworks	Magda Cocco VdA (TBC)				

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						Rafael Harillo Bufete Mas y Calvet			nationals may carry out space activities. Furthermore, in order for the general principles of international space law to find application in public and private activities, they have to be interpreted in the form of domestic legislation. Lately, the regulation of innovative space activities on national levels creates incentives for investment and financial growth. The panel will reflect the views and experience from a national space agency involved in a comprehensive legal framework established 10 years ago, a government having recently enacted a national law, and a law firm involved in the creation of the most recent national law.	
							Jenni Tapio Finnish MFAE			
							Mahulena Hofmann University of Luxembourg			

PEL SOCIAL ACTIVITY

SSP WEEK 6 // PEL WEEK 3

	Monday 2 August	9h 12h45	3h45	DA11	Military space applications	Ofer Lapid			<p>During this workshop, the participants will become acquainted with the legal and policy extensions of military space applications. The workshop will be divided into three parts. In the first part, participants will be provided with an in-depth exploration of the various artificial hazards to space assets in the military context. In particular, a typology of the various kinds of hazards will be discussed. Special attention will be given to the attractiveness of space systems to cyber threats. In the second part of the workshop, participants will work in groups in a simulation</p> <ul style="list-style-type: none"> • Identify the relevant aspects of international and national frameworks, in terms of regulation and policy, ascribing to military and defence activities in outer space. • Understand the importance of cyber resilience for space systems and the cyber threats against them. 	
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							Jacques Masson European Space Agency		<p>The path from the conception of a business idea until the establishment and operation of a start-up involves a set of legal and financial requirements. Therefore, the consideration of the regulatory and financial compliance at the early stages of the business process is essential to the success of a start-up. This interactive workshop will provide the participants with insights on the practice of setting up a company in the space sector. The first part of the workshop will focus on explaining the process of establishing a business along with the necessary legal and business steps from the perspective of a legal counsel, an in-house lawyer and an insurer. In the second part the attendants will participate in an interactive discussion about start-up ideas and topics related topics ranging from asteroid mining to green launchers, and form groups to work on either the proposed ideas or their own concept. Using the knowledge and instructions gained during the workshop, the participants will navigate through given tasks, such as deciding where to set up the company, what kind to technology to develop, who to sell it to and where to get funding from to test their knowledge and finally set up a business plan to present it to the rest of the class. The</p>	<ul style="list-style-type: none"> • Draw the timeline of required actions in the process of establishing a start-up company • Identify the main issues with regard to regulatory compliance • Calculate the time, planning requirements and costs associated to regulatory and administrative compliance of a start-up company
					Elisabet Fonarellas SatellioT					
						Randy Segal Hogan Lovells				
						Emilie Siemssen GOMspace				
		14h 17h45	3h45	DA12	"How to" for space startups					

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									lecturers will provide feedback on the business plan.	
	Wednesday 4 August	9h 12h45	3h45	DA13	Space Agency Policy on Compliance and Ethics – the CNES Approach on Business and Space Missions AND Space 2030 Agenda	Philippe Clerc CNES			The fiftieth anniversary of the I United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50) has offered a unique opportunity to reflect on more than 50 years of achievement in space exploration and use and to chart the future of the global governance of outer space activities, at a time when more participants (governmental agencies, non-governmental entities, industry and the private sector) are increasingly becoming involved.	<ul style="list-style-type: none"> • Know the process of “Space2030” Agenda and its four identified pillars namely: space economy, space society, space accessibility and space diplomacy. • Understand the importance of the legal regime and global governance for outer space activities as an integral part of the “Space2030” agenda and its implementation plan • Understand the importance of global partnership and strengthened cooperation among States, intergovernmental and non-governmental organizations, industry and private sector entities in fulfilling the “Space2030” agenda and its implementation plan • Specific for the simulation game: to improve the debate and argument skills and the capacity to act together and in agreement in an international context
						Juan-Manuel de-Faramiñán-Gilbert University of Jaén				
						María-del-Carmen Muñoz-Rodriquez University of Jaén				
	Thursday 5 August	9h 12h45	3h45	DA14	IP Workshop	Tanja Masson-Zwaan & Dimitra Stefoudi				

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		14h 17h45	3h45	DA15	Planetary defence in the classroom		Alissa Haddaji Harvard University	<p>A Planetary Defense exercise based on the Planetary Defense Scenario exercise PD scientists do once every two years during the IAA Planetary Defense Conference (PDC). Participants will be assigned a nationality for the purpose of researching a country's space capabilities and represent that country in a simulation of a forum similar to the UN Security Council. The case scenario is based on the decision-making process on an international Planetary Defence strategy after the detection of an asteroid impact threat. Discussions will take place in rounds, where more information about the threat is made available during each round. The participants should propose plans to mitigate the threat, create alliances and deal with the social and economic implications of their decisions.</p>	<ul style="list-style-type: none"> Analyse the basic principles of Planetary Defence Understand the emergency-response process followed in international organisations Explain the policy extensions of planetary defence from the perspective of individual countries
Friday August	6	9h 12h45	3h45	DA16	Moot Court	Tanja Masson, Dimitra Stefoudi & guest judges		<p>The final assessment of the PEL Department will be a moot court case on a topic related to the subjects taught during the DAs. The participants will be divided into groups that will work on the allocated questions. They will be required to submit a written brief on the moot court case and present their oral arguments before a panel of judges during this last DA.</p>	<ul style="list-style-type: none"> Resolve the presented moot court case, including questions on international space law and policy Present conclusions from case-studies on forum selection, regulatory compliance, policy negotiations Present results of research on the legal aspects of the participants' TP