

Technical presentation

“Education Curriculum on Space Law”

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Process

In 2007, the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee requested the Office for Outer Space Affairs to explore the possibility of developing a curriculum for a basic course on space law that could be used, in particular for the benefit of developing countries, in the activities of the regional centres on space science and technology education affiliated to the United Nations.

Consequently, the first United Nations Expert Meeting on Promoting Education in Space Law was held in Vienna on 3 and 4 December 2007. The Group of Experts continued to work on the curriculum over subsequent years by electronic means and, when possible, on the margins of other international space-related meetings and workshops. A first draft of the curriculum was circulated for comments in the Legal Subcommittee in 2009, and a second draft was circulated in 2011.

The Group of Experts worked on various modules, focusing on different areas of space activities and space law. Consequently, since 2012, the work focused on harmonizing the content of the modules for consistency. Several rounds of consultations by electronic means were held until recently, where the pedagogical

and methodological complexities involved were particularly addressed. This process was completed in late 2013, and substantive clarity, structural stringiness and visual attractiveness of the product were gradually sharpened all the way until just a few weeks ago.

Purpose and use of the Curriculum

Although the curriculum has been developed to support the activities of the regional centres on space science and technology education affiliated to the United Nations, it has been structured in such a manner that it can also serve as an educational tool for other educational institutions and training initiatives. The curriculum is complemented by an online compilation of supplemental reference materials, available on the website of the Office for Outer Space Affairs.

This curriculum on space law is designed to be an efficient and flexible tool for global capacity-building on the beneficial uses of outer space and the law applicable thereto.

Knowledge of the legal framework for these technologies provides a deeper understanding of the interconnected roles of space science, technology and law play in international development and cooperation in space activities. Raising awareness and building regional capacity in the knowledge and application of space law furthers international development and cooperation.

In particular, as space activities and their applications are developed, it is crucial to understand, at least on a general level, how law and regulation interact with such developments. Though lawyers may be needed in the end to draft national legislation and regulations related to space activities, inputs are needed from the scientific, technical, operational and political communities so that the realities behind space activities and their applications are properly taken into account.

Existing laws and regulations can both be used to further the use of beneficial applications and international cooperation in this context, and to lay out certain conditions or guidelines for them. In both cases it is important to establish an understanding of the law and legal approaches as early as possible, as mid-course corrections in projects are always far more costly in terms of time, effort and funds than acquiring prior knowledge of the legal parameters for the project at hand.

Thanking experts involved

- Name and thank the experts involved:

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Also, thanks to our Chinese colleague, Mr. Guoyu Wang, who has helped the Office to identify a wealth of references and resources in Chinese.

The curriculum, and its supporting list of sources, is the first step. Now we reach the second level comprising the phase of implementation and teaching. Here we should consider the role of this unique curriculum within the dedicated efforts of the Office in advancing capacity-building in space law and policy, as well as forming part of the UN Programme on Space Applications. In this regard, the Office will work closely with the Regional Centres for

Space Science and Technology Education in order to identify the needs of the Regional Centres in introducing the space law curriculum into their education programmes. In this regard, the Office is actively investigating different ways of making the Curriculum and its teaching as accessible and dynamic as possible, to attract the interest of as many students as possible. We will keep you readily updated on the progress in this regard.

Structure of the Education Curriculum on Space Law

- Location of the Curriculum on the website
- Description: interactive PDF, the user can scroll through the Curriculum, or click his / her way through
- The links are active
- The Curriculum consists of four modules
 - o Module 1: Basic concepts of international law and space law
 - o Module 2: International law and other regulations applicable to remote sensing, geographic information systems, satellite meteorology and global climate activities
 - o Module 3: Satellite communications and applicable international law and other regulations
 - o Module 4: Global navigation satellite systems and applicable international law and other regulations

Each module begins with an "Introduction" of the topic at hand and its connection to international law and the space law regime. Next, a "Module Objective" is provided to identify the main areas of study during the module. The purpose of the "Learning Outcomes" is to

identify, from the learner's perspective, what he or she will learn in each module. The section on "Module Design" gives the instructor a suggested scheme for time management, while at the same time leaving the instructor with the flexibility to make the maximum use of local resources. It is suggested that lectures can be augmented or substituted with guest lecturers, tutorials, practical exercises, etc.

Each module consists of five classes. The topics to be covered are described in some detail under the respective classes. The section on "Learning objectives" will again identify, from the learner's perspective, what he or she will learn in that particular class. A list of materials to support the studies, including relevant treaties, General Assembly resolutions and websites of actors mentioned during the class, is provided for each class. Whenever possible, online resources have been provided.

At the end of each module, a follow-up section will provide the instructor with examples of questions that can be used by students to test their knowledge of the most relevant aspects of the module. Suggested topics for students interested in further study are also provided as applicable.

To support the Curriculum, a compilation of supplemental materials, including lists of monographs, articles and other materials, in all official languages of the United Nations whenever possible, has been made available and is regularly updated on the OOSA website. Also, addresses to useful websites for the study of space law and international space activities is included.

In this compilation of materials, you will see that there is still a need to identify further resources in all official languages of the United Nations, more so for some classes than others. This compilation is intended to be a dynamic bank of resources, both for the educators and the students, and anyone interested in learning more about current developments in space law, and therefore we will keep updating it regularly. In this respect, we would appreciate your inputs, in particular for those classes where resources in all the official United Nations languages are not yet identified.

Conclusion

What you have seen is the result of the work of the group of experts and the Office for Outer Space Affairs, and with the completion of this Curriculum, we now enter into the second phase, which is, as already mentioned, implementation and teaching. The Office will work closely with the Regional Centres for Space Science and Technology Education and develop a plan to “deploy” the Curriculum so that there is a solid basis on which education can start.

And with this, distinguished delegates, we conclude this brief introduction and invite you to visit the website of the Office to have a look at the Curriculum, and as we have many educators in the room, also use the Curriculum, and let us know how it works in practice as a teaching tool.

Thank you.