



UNITED NATIONS
Office for Outer Space Affairs

UNITED NATIONS/AUSTRIA SYMPOSIUM
"ACCESS TO SPACE: HOLISTIC CAPACITY BUILDING FOR THE 21ST CENTURY
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OVERVIEW OF THE EXISTING UN CURRICULA ON SPACE TECHNOLOGY AND SPACE LAW

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Regional Centres established under the guidance of UNOOSA

Six Regional Centres on Space Science and Technology Education,
affiliated to the United Nations:

1995: Asia and the Pacific (CSSTEAP), India

1998: African RC in French language (CRASTE-LF), Morocco

1998: African RC in English language (ARCSSTE-E), Nigeria

2003: Latin America and the Caribbean RC (CRECTEALC), Campus in
Mexico and Brazil

2012: Western Asia (RCSSTEWA), Jordan

2014: Asia and the Pacific (RCCSTEAP - China), China



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Education curricula on space science and technology education

Curriculum on remote sensing and geographic information systems

Curriculum on satellite meteorology and global climate

Curriculum on satellite communications

Curriculum on space and atmospheric science

Curriculum on global navigation satellite systems

Curriculum on space law



Education curriculum on space law

Two complementary structures of modules:

Module 1 applicable to the fellows irrespective of course being taken

Module 2-5 directly relevant to course being taken by fellows

Module 1: Basic concepts of international law and space law

Module 2: International law and other regulations applicable to remote sensing, geographic information systems, satellite meteorology and global climate activities

Module 3: Satellite communications and applicable international law and other regulations

Module 4: Global navigation satellite systems and applicable international law and other regulations



Module 1: Basic concepts of international law and space law

- Introduction to international law
- International space law treaties and Principles and other relevant topics (1721B, radio frequencies and GSO etc)
- Important concepts specific to space law
- National regulation of space activities
- Commercial and private use of outer space
- Multilateral and bilateral agreements
- International intergovernmental organisations related to space activities (COPUOS, ITU, International satellite organisations)
- Settlement of disputes



Module 2: Remote sensing & GIS and satellite meteorology and global climate

- International space related (OST, RS Principles, UN-SPIDER, WMO, Space Benefits Resolution, etc)
- National space related (Canada, France, Germany, USA, etc)
- Global (Protection of Ozone Layer Convention, Montreal Protocol, Kyoto Protocol, etc)
- Bilateral and Multilateral Agreements
- Sources of Data (Civil government systems, Private commercial systems, Public-Private Partnership commercial systems, Databases, Archives)



Module 3: Satellite communications

- Radio frequencies and orbital positions
- International and national regulations
- ITU Constitution, Convention and Radio Regulations
- Selection of appropriate radio frequencies and orbital positions
- Harmful interference and resolution of interference
- National laws and regulations, technical standards
- National licensing and regulation of operation of satellite services
- World Trade Organization regulations, Global Mobile Personal Communication Services (GMPCS) procedures, regulation of direct satellite broadcasting contents



Module 4: GNSS

- GNSS Technology, Dual Use Technology, Augmentation of GNSS
- Different Classes of GNSS Services (Standard, Precise)
- GNSS Institutions (Int'l, National)
- Legal Regimes (Int'l, National)
- GNSS Providers (US, Russian Federation, Europe, China, India and Japan)
- GNSS Legal issues (continuity, financing, universal access, sole use etc),
Legal Rights of Privacy, Legal Protection of GNSS Data
- International Trade Issues



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Resources

List of resources in the public forum

- Text books
- Other references and resources

Languages

- English
- French
- Spanish
- Other official languages of the United Nations



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THANK YOU

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United Nations Office at Vienna

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