Language of instruction: English

Course objectives: This course deals with the international legal aspects of various space applications. In particular, the course examines the international law related to satellite telecommunications, the role therein of various international organizations as well as broadcasting by satellite, navigational services, remote sensing by satellites, space stations, space travel, etc. Certain specific aspects of international law will be discussed as they relate to international technology transfers, military uses of outer space, trade in space products, satellite telecommunications and launch services.

Course materials:

Mandatory texts:


- International Convention Concerning the Use of Broadcasting in the Cause of Peace, 1936

- International Covenant on Civil and Political Rights, 1966

- Treaty on Principles Governing the Activities of States in the Exploration and the Use of Outer Space, including the Moon and other Celestial Bodies; entered into force on Oct. 10, 1967

- INTERSPUTNIK (1971), ARABSAT (1976), agreements; [also INTELSAT (1973), INMARSAT (1976), EUTELESAT (1982)]

- Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite, Brussels, 1974

- UN Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting, 1982

- Agreement on the Activities of States on the Moon and other Celestial Bodies; entered into force on July 11, 1984

- UN Principles Relating to Remote Sensing of the Earth from Outer Space, 1986

- European Convention on Transborder TV, 1989 (as amended in 1998)


- International Space Station Agreements, 1998; and related MoU’s and arrangements.


- Resolution of the UN General Assembly on Prevention of an arms race in outer space, UN Doc. A/C.1/60/L-27 of 12 October 2005

- Resolution of the UN General Assembly on Prevention of an Arms Race in Outer Space, UN Doc. A/RES/61/58 of 6 December 2006

**Recommended texts:**


- Bender, R., Launching and Operating Satellites: Legal Issues, 1998

- Bourbonniere, Michel, “LOAC and the Neutralization of Satellites: or *ius in bello* satellites”, 2004


  Union in a Changing World, 1982
  FAS Panel on Weapons in Space, September 2004;
  http://www.fas.org/main/content.jsp?formAction=297&contentId=311
- Guldimann, W. and Kaiser, S, Future Air Navigation Systems: Legal and
  Institutional Aspects, 1993
- International Academy of Astronautics, Cosmic Study on Space Traffic
- Jakhu, Ram S., Space Security and Competition For Radio Frequencies And
  Geostationary Slots, to appear in Zeitschrift Für Luft-und Weltraumrecht, 2009,
  (with Karan Singh)
  ---- “Twenty Years of the Moon Agreement: Space Law Challenges for
  243 et seq.
  ---- “Reforming the Regulatory Regimes governing Telecommunications in
  Asia” in Proceeding of the Conference on Asian Cooperation in Space
  Activities: A Common Approach to Legal Matters, held on 1-4 August 2006, in
  Bangkok, Thailand, published in 2007, 14 pages (un-paginated)
  ---- “Policy and Legal Aspects of the Space Launching Sites on Korea”,
  Proceedings of the International Symposium on Space Launch Infrastructure,
  May 6-7, 2005, Goheung County, Jeonnam, Korea.
  ---- “Challenges in Regulating Satellite Telecommunications in the Early 21st
  ---- “International Law Regarding the Acquisition and Dissemination of
  ---- “Legal Aspects of Space Tourism”, Proceedings of the Forty-Fourth
  Colloquium on the Law of Outer Space, 2002, pp 112 et seq. (with Raja
  Bhattacharya).
Outline of Course on Law of Space Applications (2009) by Ram Jakhu

--- (with Michael Davis), Global Mobile Personal Communications Satellite Systems (GMPCS) - The International Regulatory Revolution, Paper no. IAF-98-m.3.01
--- Materials Processing in Space - Programs and Legal Aspects, 1992;
--- Plenipotentiary Decisions on Key Legal Issues, in Transnational Data and Communications Report, Aug./Sept. 1989, 15 et seq.;


- Johnson, Rebecca, “Multilateral Approaches to Preventing the Weaponisation of Space” in Disarmament Diplomacy, Issue No. 56, April 2001; http://www.acronym.org.uk/dd/dd56/56rej.htm


- Lyall, F., Law and Space Telecommunications, 1989


- van Traa-Engelman, Commercial Utilization of Outer Space: Legal Aspects, 1989


- Young, A.J., Law and Policy in the Space Stations' Era, 1989

**Evaluation:** 100 % Examination (open book; 3 hours) on Wednesday, 22 April 2008, at 2.30 PM

**General Information:**

*Companion courses in the faculty of law:* Public International Law; Law of International Organizations, Communications Law in Canada.

**Prerequisites:** None (however, some knowledge of *General Principles of Space Law* and/or *Public International Law* is assumed)

**Teaching days and hours:** Mondays: from 2.30 to 5.30 PM; except where notified otherwise.

**Professor’s coordinates:** Room 100, 3661 Peel Street; Tel. 514-398-1382; Email: ram.jakhu@mcgill.ca

**Office hours:** open door; or contact Ms. Maria D’Amico at maria.damico@mcgill.ca to arrange for a meeting at mutually convenient day and time.

**Preferred method of communication:** email.

**Rescheduled classes:** No rescheduled classes are expected at this time. Should they become necessary, students will be notified accordingly.

---

McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (for more information, visit: [http://www.mcgill.ca/integrity/](http://www.mcgill.ca/integrity/)).
OUTLINE AND TENTATIVE SCHEDULE OF LECTURES

(01) Monday, 05 January 2009: 2.30 to 5.30 PM  
Factual Background and Introduction  
(a) Technology of space applications  
(b) Relationship between space technology and law of space applications

(02) Monday, 12 January 2009: 2.30 to 5.30 PM  
Regulation of Telecommunications by Satellite  
(a) Legal regime, established through intergovernmental consultative organisation  
(the International Telecommunication Union-ITU) regulating the use of the radio frequencies and the geostationary orbit  
(i) Brief history and organisational structure of ITU

(03) Monday, 19 January 2009: 2.30 to 5.30 PM  
(ii) Right-vesting procedures, including coordination and registration, for interference-free operation of satellites

(04) Monday, 26 January 2008: 2.30 to 5.30 PM (Audrey Allison, Boeing, TBC)  
(ii) Right-vesting procedures (contiu…..)

(05) Monday, 02 February 2009: 2.30 to 5.30 PM  
(b) Legal regime governing intergovernmental satellite operating organisations  
(i) World-wide and regional organisations and their distinctive features  
(ii) Latest legal developments in privatising these organisations

(06) Monday, 09 February 2009: 2.30 to 5.30 PM  
(c) The World Trade Organisation and the law implementing liberalisation of satellite telecommunication services  
(d) Legal and policy issues related to Global Mobile Personal Communication Satellite (GMPCS) services

(07) Monday, 16 February 2009: 2.30 to 5.30 PM  
(e) Specific legal issues related to:  
(i) Direct broadcasting by satellites (DBS)  
(ii) Unauthorised interception of satellite signals

23 – 27 February 2009 - Study Week - no classes

(08) Monday, 02 March 2009: 2.30 to 5.30 PM  
Legal Regime Governing Manned Space Activities, including Space Stations and Space Travel  
(a) Relevant technical aspects of manned space activities (including space stations)
(b) Analysis of the 1998 international agreements for the operation of the International Space Station, particularly their provisions relating to:
(i) national jurisdiction, especially over criminal matters,
(ii) participation in and utilisation of the ISS facilities by partners and non-partners,
(iii) operation and organisation,
(iv) liability and cross-waiver of liability,
(v) acquisition and protection of intellectual property rights (including data security) in materials processed in outer space
(c) Specific legal issues relating space travel and tourism.

(09) Monday, 09 March 2009: 2.30 to 5.30 PM
Legal Regime Governing Manned Space Activities (conti…)

(10) Monday, 16 March 2009: 2.30 to 5.30 PM (Dr. Peter van Fenema - TBC)
Legal Issues Related to Space Transportation, Trade and Transfer of Technology
(a) Agreements relating to international trade in space launch services,
(b) International trade in space products and legal barriers to international transfer of space technology

(11) Monday, 23 March 2009: 2.30 to 5.30 PM (Jiefang Huang – TBC)
A. Regulation of Navigation by Satellites
(a) Relevant technical and political aspects of navigation by satellite (NAVSATs)
(b) Legal and institutional issues related to the satellite-based navigation systems in general and for aeronautical services (CNS/ATM) in particular
(c) Law and space traffic management

B. Regulation of Remote Sensing by Satellites (including meteorological services)
(a) Relevant technical aspects of satellite remote sensing,
(b) United Nations and legal principles governing remote sensing satellites,
(c) Regulations and policies relating to the control of collection of remote sensing data, its processing and distribution

(12) Monday, 30 March 2009: 2.30 to 5.30 PM
Military Uses of Outer Space
(a) International law and military activities in outer space
(b) Space arms control and disarmament: proposals and prospects
(c) Law of armed conflict and rules of engagement (re: military space operations)

(13) Monday, 06 April 2009: 2.30 to 5.30 PM
Military Uses of Outer Space: (conti….)
Final Review of the Course: Questions and Answers

Last day of Classes: Tuesday 14 April 2009