

SPACE POLICY & LAW COURSE
9 TO 11 NOVEMBER 2020**ON-LINE****MONDAY 9 NOVEMBER 2020****1. SPACE ENVIRONMENT AND TECHNOLOGY - 09.15 - 10.30* SM & JE**

- Delimitation of Space and Airspace
- Environmental characteristics
- Orbits, types of spacecraft, mega-constellations
- Discussion and questions

BREAK - 10.30 - 10.40

2. POLICY REGIME, FORMULATION AND INSTITUTIONS - 10.40 - 12.00 AB & CB

- Policy Principles, Peaceful Use, Non-appropriation, Cooperation and Non-interference
- Policy development and institutions
- International and National Institutions - nature and role
- UN COPUOS, ESA, Regional Organisations and Operating Method
- National policies, formulation and implementation
- Discussion and questions

LUNCH - 12.00 - 12.45

3. THE LEGAL REGIME - 12.45 - 14.00 SM & RK

- Sources of Space Law, Outer Space Treaties, UN Resolutions; Other regimes - Antarctic, Maritime and Air Law
- International Responsibility and Liability distinguished
- National space laws and Licensing
- Norms, Practices, Guidelines, Regulations and Standards
- Discussion and questions

BREAK - 14.00 - 14.10

4. THE LAWS GOVERNING SPACE APPLICATIONS - 14.10- 15.30 SM

- Sovereignty, Property Rights
- Remote Sensing: UN Principles and Disaster Charter
- Scientific experiment, Exploration and Exploitation
- Manned space activities: The ISS & its IGA; Chinese Space Station
- Discussion and questions

BREAK - 15.30 - 15.40

*** Times given are GMT (London time) and need to be corrected for your local time zone.**

5. SATELLITE COMMUNICATIONS - 15.40 - 16.50 YH

- Telecommunications and Broadcasting: The Role of the ITU
- Orbital Positions, Co-ordination
- Spectrum management: Frequency Efficiency and Market Reach
- Harmful interference, jamming, signal interception, cyber security, frequency priority, EU and the ITU
- Discussion and questions

TUESDAY 10 NOVEMBER 2020

6. COMMERCIAL SPACE ACTIVITIES - 09.15 - 10.30 DL & SF

- Nature and range of commercial space ventures
- PNT Applications and Services
- Spaceflight and Spaceports
- Small Satellite Constellations, On-orbit Servicing
- Regulation, Market Access
- Discussion and questions

BREAK - 10.30 - 10.40

7. RISK, LIABILITY AND INSURANCE - 10.40 - 12.00 DB & AH

- Laws Governing Liability (Risk and Fault)
- Liability for Debris and Obligation not to Create
- Active Debris Removal - Remediation vs Mitigation
- Insurance
- Discussion and questions

LUNCH - 12.00 - 12.45

8. CURRENT AND FUTURE DEVELOPMENTS - 12.45 - 14.00 J-JD

- Constellations, Small Satellites
- Focus on Applications
- Extra-terrestrial habitation
- Artemis Accords
- Discussion and questions

BREAK - 14.00 - 14.10

9. CURRENT AND FUTURE DEVELOPMENTS - 14.10 - 15.10 CC

- EU and ESA Relationship
- Impact of UK Withdrawal from EU
- Space Powers Mid-century, US, China, Russia, India, Japan, EU
- Discussion and questions

BREAK - 15.10 - 15.20

10. MILITARY USES AND SECURITY - 15.20 - 16.30 MR

- Military support functions and Space Weapons
- Space a "war-fighting" domain
- Role of Cyber, Drones and Robotics
- Environmental and humanitarian factors
- Small Satellite Constellations potential and risks
- Discussion and questions

WEDNESDAY 11 NOVEMBER 2020

11. SPACE HAZARDS AND SAFETY - 09.15 - 10.30 RC

- Space hazards - Man made and natural: Meteorites, Debris
- Space Situational Awareness and Space Traffic Management
- Space Weather
- Discussion and questions

BREAK - 10.30 - 10.40

12. SPACE HAZARDS AND SAFETY - 10.40 - 12.00 RC

- Debris Reduction and Elimination Measures
- Responsible Behaviour, Transparency and Confidence Building Measures
- Terrestrial environmental impact
- Discussion and questions

LUNCH - 12.00 - 12.45

13. CASE STUDIES - 12.45 - 13.45 SM

- Recovery and Return
- Debris (liability, sovereignty, space situational awareness and other concepts)
- Mining (Commercial & State participation, property rights, potential pollution from space, appropriation and the issue of territory vs. resources, and other concepts)
- Active Debris Removal

14. REVIEW & CONCLUSION - 13.45 - 15.00 SM

- Course Summary, Discussion and conclusion

MS and DS expect to join in discussion of topics where possible

LECTURERS

- AB - Dr Alice Bunn, International Director, UK Space Agency
- CB - Dr Christoph Beischl, Research Fellow, ISPL
- DB - Denis Bensoussan, Head of Space, Beazley
- CC - Professor Chiara Cellerino, University of Genoa
- RC - Professor Richard Crowther, Chief Engineer, UK Space Agency; ISPL Faculty & Adviser
- GD - Wing Commander (Ret'd) Dr Gerry Doyle, Senior Prog. Manager, Raytheon; ISPL Faculty
- J-JD - Professor Jean-Jacques Dordain, CNES; past ESA Director-General; ISPL Faculty & Adviser
- JE - Dr Jonathan Eastwood, Director, Space Lab, Imperial College London
- SF - Professor Steven Freeland, Western Sydney University; ISPL Senior Fellow
- AH - Akiko Hama, Underwriting Manager Space, Global Aerospace
- YH - Yvon Henri, Former Chief, Space Services; Member, Radio Regulation Board, ITU
- RK - Dr Ranjana Kaul, Partner, Dua Associates
- DL - Donna Lawler, Principal, Azimuth Advisory; ISPL Faculty
- SM - Professor Sa'id Mosteshar, Barrister; ISPL Director
- MR - Air Commodore (Ret'd) Mark Roberts, Defence & Security, RHEA Group; ISPL Faculty
- DS - Professor David Southwood, past Chairman, Steering Board, UK Space Agency; ISPL Board
- MS - Professor Sir Martin Sweeting, Executive Chairman, Surrey Satellite Technology; ISPL Board