Space at UCL

Professor Alan Smith
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The Big Picture

- Space Science
- The Earth from Space
- Commercial Space & Enablers

- Safe and Secure Space
- Our feelings about Space
- Living in Space and Off-World
Space Science

UCL’s track record in space science is spectacular and formative.

A legacy of the great Harrie Massie

This week we’ll be describing many (7) of the future space science mission in which we have played a leading role and some of the most recently flown (2).

This week:

Monday
Solar-C
Euclid
Gaia
Solar Orbiter
SMILE

Tuesday
The robotic exploration of the Solar System
ExoMars
Comet Interceptor

Thursday
PLATO
Ariel
The Earth from Space

- UCL has particular strengths in cryosphere research including Cryosat, and the Centre for Polar Observation and Modeling (CPOM)

This week:
Thursday:
- ESA_Lab Earth Observation
- UCL-France Conference Debat:
  - Space and Climate
Commercial Space and Enablers

- UCL has a growing interest in the commercial opportunities related to Space
- We’ve developed excellent relations with the Satellite Applications Catapult with a second collaborative funding call in process.
- There’s also a growing community of student space-entreprenuers.
- MSSL continues to provide services to industry including facility hire and training

This week:

Monday:
- IAF
- ESA
- UK Space Agency
- Sat. App. Catapult
- Policy
- UCL space society
- UCL space domain

Wednesday:
- Space Policy Workshop

Thursday:
- ESA_Labs
  - Artificial Intelligence
  - Satellite comms
  - Materials
  - Project Management & Systems Engineering
Safe and Secure Space

• Free from collisions
• Robust to solar activity

This week:
Thursday:
   ESA_Lab
   Orbital Dynamics
   Space Weather
Our Feelings about Space

- The anthropological view
- How do we relate to space?
- How have we been changed by space and the experiences of astronauts?

This week:

Monday:
- COSS
  - The Artistry of Dan Curry
Tuesday:
- The overview effect on missions to Mars
Living in Space and Off-World

- Visiting – Apollo and Artemis
- Working – Science, support, commerce
- Living – indefinite, inhabit, home

This week:

Tuesday:
- Humans in Space
  - Moon and Mars
  - OWLI
  - Psychology
  - Physiology
  - Risk

Friday:
- Debate: “Settling on Mars is essential for the future of humanity”
Looking ahead

• Space is an essential element of our modern world and will play a part in addressing its challenges
• The Space sector is becoming increasingly integrated into almost every aspect of our lives. Its connectivity and interdependence cannot be ignored
• The Space sector is changing, the role of space agencies is evolving, commercial space is growing
• UCL will play its role, enhancing, enabling and influencing the evolving Space sector and using the capabilities that Space offers for the greater good.