

1st Space Technology Course

1st Week Schedule

1 November (Monday)

- 9:00 **Welcome & formal Opening of the 1st CTU Space Course**
Prof. Ing. Petr Moos, CSc., Vice-Rector for Development, CTU in Prague
Klaus-Peter Ludwig, Director Political Relation, EADS
Roman Srp, Vice-president, ITS&S (SDT)
- 10:00 **"A short History of Europe in Space"**
Klaus-Peter Ludwig, EADS
- 11:30 **Czech Republic and it's Space experience**
Vladimír Remek, MEP, Czechoslovak Cosmonaut
- 13:00 **Lunch break**
- 14:00 **Fundamentals of Space mechanics & dynamics**
Prof. Ing. Jan Kusák, CSc.
- 15:30 **The Rocket Drives**
Prof. Ing. Jan Kusák, CSc.
- 17:00 **End of lectures**

2 November (Tuesday)

- 9:00 **Space Project Lifecycle**
Prof. Rudolf Benz, Astrium
- 11:30 **The story of the Cassini Huygens Mission**
Klaus-Peter Ludwig, EADS
- 13:00 **Lunch break**
- 14:00 **Space System Engineering**
Prof. Rudolf Benz, Astrium
- 15:30 **Design Criteria for Space Systems**
Prof. Rudolf Benz, Astrium
- 17:00 **End of lectures**

3 November (Wednesday)

- 9:00 **Conceptual Mission and System Design**
Prof. Rudolf Benz, Astrium
- 11:00 **1st Task force: lunar mission – mission phases, timeline, functional needs and architecture**
(all students in separate groups)
- 13:00 **Lunch break**
- 14:00 **Presentation of the task forces; discussion**
- 15:30 **Fundamentals of Light weight structures & materials**
Dr. Blanka Lenczowski, EADS
- 17:00 **End of lectures**

4 November (Thursday)

- 9:00 **Subsystems overview:**
a) Attitude & Orbit Control System (AOCS)
b) Propulsion, Reaction Control System (RCS)
c) Power
Prof. Rudolf Benz, Astrium
- 13:00 **Lunch break**
- 14:00 **Subsystems overview:**
d) On Board Data Handling (OBDH)
e) Telemetry, Tracking & Command (TT&C)
f) Thermal Control System (TCS)
Prof. Rudolf Benz, Astrium
- 17:00 **End of lectures**

5 November (Friday)

- 9:00 **Introduction into 2nd task force**
Prof. Rudolf Benz, Astrium
- 10:00 **2nd Task Force: lunar mission –lander and rover**
(all students in separate groups)
- 13:00 **Lunch break**
- 14:00 **Presentation of Results and discussion**
- 16:00 **End of 1st week lectures**