

# ***Space Structures Agenda***

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## DAY 1

- 9.00 Introduction of the course, the lecturer, the attendees
- 9.30 Mechanical behaviour of structural materials and structures for space
- **10.45 Coffee Break**
- 11.00 The structural subsystem in the frame of the spacecraft system. Configuration and functional relationships. Case studies
- **12.30 Lunch Break**
- 13.30 Space mission environments: sources for loading and structural requirements
- **15.00 Coffee Break**
- 15.15 Structural analysis: the fundamental physics and the relevant mathematical assumptions of the models of solids and structures
- 17.00 Time for questions and comments
- **17.30 Adjourn – Welcome cocktail offered by the ESA SME Unit**

## DAY 2

- 9.00 Finite element procedures for static, dynamic, buckling and thermoelastic analyses. Characteristics of the available commercial codes
- **10.30 Coffee Break**
- 10.45 Finite element procedures for static, dynamic, buckling and thermoelastic analyses (continued). Case studies
- 11.30 Design criteria and procedures of space structures
- **12.30 Lunch Break**
- 13.30 Verification by test and quality assurance
- **15.00 Coffee Break**
- 15.15 Production, manufacturing, quality, in-service, data exchange issues
- 16.30 References and ECSS standards
- 17.00 Time for questions and evaluation of the course
- **17.30 Distribution of Certificates and End of Course**