Master’s Programme Postgraduate

Master of Engineering (MEng) in Space Systems and Business Engineering

Language of instruction
English

Degree
MEng SpaceTech - Master of Engineering in Space Systems and Business Engineering

Locations
Graz University of Technology (Austria)
CNES Toulouse (France)
ESA ESOC Darmstadt (Germany)
DLR GSOC Munich (Germany)
ESA ESRIN Frascati (Italy)
ESA ESTEC Noordwijk (The Netherlands)

Attendance Fee
€ 34,000.- (no VAT)
exclusive costs for travelling, accommodation and meals

Schedule
please see: SpaceTech.tugraz.at

Detailed Information
SpaceTech.tugraz.at

Contact and Registration
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Legal Notice
The global space sector continues to grow at a fast pace, introducing new technical challenges, exciting business opportunities and the need for multi-national teams that can manage the associated systems engineering.

Space activities, by their very nature, are global and multi-national. Civil and commercial organizations that compete in the space arena are in dire need of highly-capable technical leaders (systems engineers and project managers) that are able to organize and manage diverse teams, identity and cultivate potential business cases, maintain technical integrity across the business or project and meet schedules at or below cost.

The SpaceTech Masters in Space Systems and Business Engineering began in 1997 and has graduated several hundred technical leaders that have gone on to lead large international space projects, serve as CEOs and Center Directors in their organizations. TU Graz’ success in conducting this program is due in great part to the ability to identify and select, and Center Directors in their organizations. During the 18 month program we get to know each other very well, and, in many cases, form lasting friendships. The best part of the SpaceTech Program for me is seeing our participants meet and exceed their goals to become leaders of their organizations, working together across cultures and countries.

The combination of lectures by distinguished internationally renowned personalities from the space community with the creation of a virtual start-up company made the study programme an exciting experience. With little practical experience in the interdisciplinary depth theoretical knowledge. Another distinct advantage is that it allowed us to establish a mentor network and gain professional contacts from the global space. Moreover the interdisciplinary discussions and learning were not just enriching but also very exciting.

Our Central Case Project – a kind of virtual Space start-up – dealt with the subject of providing start-ups. Discussions and tinkering were not just enriching but also very exciting. Moreover the interdisciplinary depth theoretical knowledge. Another distinct advantage is that it allowed us to establish a mentor network and gain professional contacts from the global space. Moreover the interdisciplinary discussions and learning were not just enriching but also very exciting.

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The key for success

Systems engineering is key to success for every space mission. Combined with business engineering the SpaceTech professional post-graduate master’s degree offers unique opportunities for young professionals who wish to extend their knowledge and skills in all relevant areas of space systems.

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A very unique experience

Our participants are hand-picked, mid-career men and women, supported by governments or industries around the globe, to attend SpaceTech. With the goal of developing necessary capabilities to become technical leaders in their organizations, during the 18 month program we get to know each other very well, and, in many cases, form lasting friendships. The best part of the SpaceTech Program for me is seeing our participants meet and exceed their goals to become leaders of their organizations, working together across cultures and countries.

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The international space and Earth science communities have requested that the Business of Science (BoS) module be included in the SpaceTech program in order to provide project scientists, aspiring Principal Investigators (PIs), scientists and project managers within the opportunity to work together as a team to create credible space and Earth science proposals. This is the key for success.

The international space sector continues to grow at a fast pace, introducing new technical challenges, exciting business opportunities and the need for technical leaders that can manage the associated systems engineering. Project managers (as well as team members) that are able to organize and manage diverse teams, identify and cultivate potential business cases, maintain technical integrity across the business of project and meet schedule at or below cost.

The SpaceTech Masters in Space Systems and Business Engineering began in 1997 and has graduated several hundred technical leaders that have gone on to lead large international space projects, serve as CEOs and Center Directors in their organizations. TU Graz' success in conducting this program is due in great part to the ability to identify and select, hand-pick, mid-career men and women, supported by governments or industries around the globe, to attend SpaceTech with the goal of developing necessary capabilities to become technical leaders in their organizations. During the 18 month program we get to know each other very well, and, in many cases, form lasting friendships. The best part of the SpaceTech program for me is seeing our participants meet and exceed their goals to become leaders of their organizations, working together across cultures and countries.

Working together across cultures and countries

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Legal Notice
Admission Requirements:

- Bachelor’s or Master’s degree in a technical, scientific, economic or legal field, or similar academic qualification
- Minimum 3 years of professional experience working in the aerospace sector or a closely related field
- Proficiency in English
- Application Deadline: 15 January 2020
- Start of the programme: March 2020

Modules:

- Business Engineering
- Space Mission Analysis and Design
- Telecommunications
- Earth Observation
- Navigation
- Interpersonal Skills & Leadership Development
- Central Case Project (CCP)
- Systems Engineering
- Human Space Flight
- Selected Topics: Business of Science
- Project Management
The global space sector continues to grow at a fast pace, introducing new technical challenges, exciting business opportunities and the need for technical leaders that can manage the associated systems engineering projects effectively. Space activities, by their very nature, are global and multi-national. Civil and commercial organizations that compete in the space arena are in dire need of highly capable technical leaders (systems engineers and project managers) that are able to organize and manage diverse teams, identify and cultivate potential business cases, maintain technical integrity across the business or project and meet schedule at or below cost.

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Working together across cultures and countries

Our participants are hand-picked, mid-career men and women, supported by governments or industries around the globe, to attend SpaceTech, with the goal of developing necessary capabilities to become technical leaders in their organizations. During the program we help our participants establish the skills necessary to identify science goals and potential mission concepts, develop necessary measurement requirements, appropriate instrument and sensor requirements, projected performance, as well as top-level space mission requirements, all aimed at creating a credible science baseline for potential funding.

A very unique experience

The combination of lectures by distinguished internationally renowned personalities from the space community with the creation of a virtual start-up company made the study experience unique and very exciting. The future looks bright for SpaceTech with small teams of participants working on their Central Case Project on which all participants work together. This was a very unique situation that led to the creation of our program. The virtual team effort and the use of the internet and email not only speeded up the working processes but also contributed to the high level of interaction and enthusiasm.

The SpaceTech programme is designed with both online and presence session elements. This is intended to allow participants to take the course in parallel with their normal jobs. It also features, as an important part of particular emphasis, a Central Case Project in which all participants work, both individually and collectively. All lectures, documentation, and examinations are in English.

Target Audience / Participants

International mid-career professionals seeking top-level expertise in space systems and business engineering.
We care about continuing education.

Presence Session 1
SMAD Space Mission Analysis and Design
NAV Navigation

Presence Session 2
BE Business Engineering
EO Earth Observation

Presence Session 3
SE Systems Engineering
TC Telecommunication

Presence Session 4
ISLD Interpersonal Skills and Leadership Development
HSF Human Space Flight

Presence Session 5
ST Selected Topics
CCP Central Case Project

Presence Session 6
CCP Central Case Project
ISLD Interpersonal Skills and Leadership Development

Presence Session 7
CCP Central Case Project
MT Master’s Thesis

This is a draft calendar, dates, contents and locations are subject of change. Please find the most recent calendar on the SpaceTech website: SpaceTech.tugraz.at