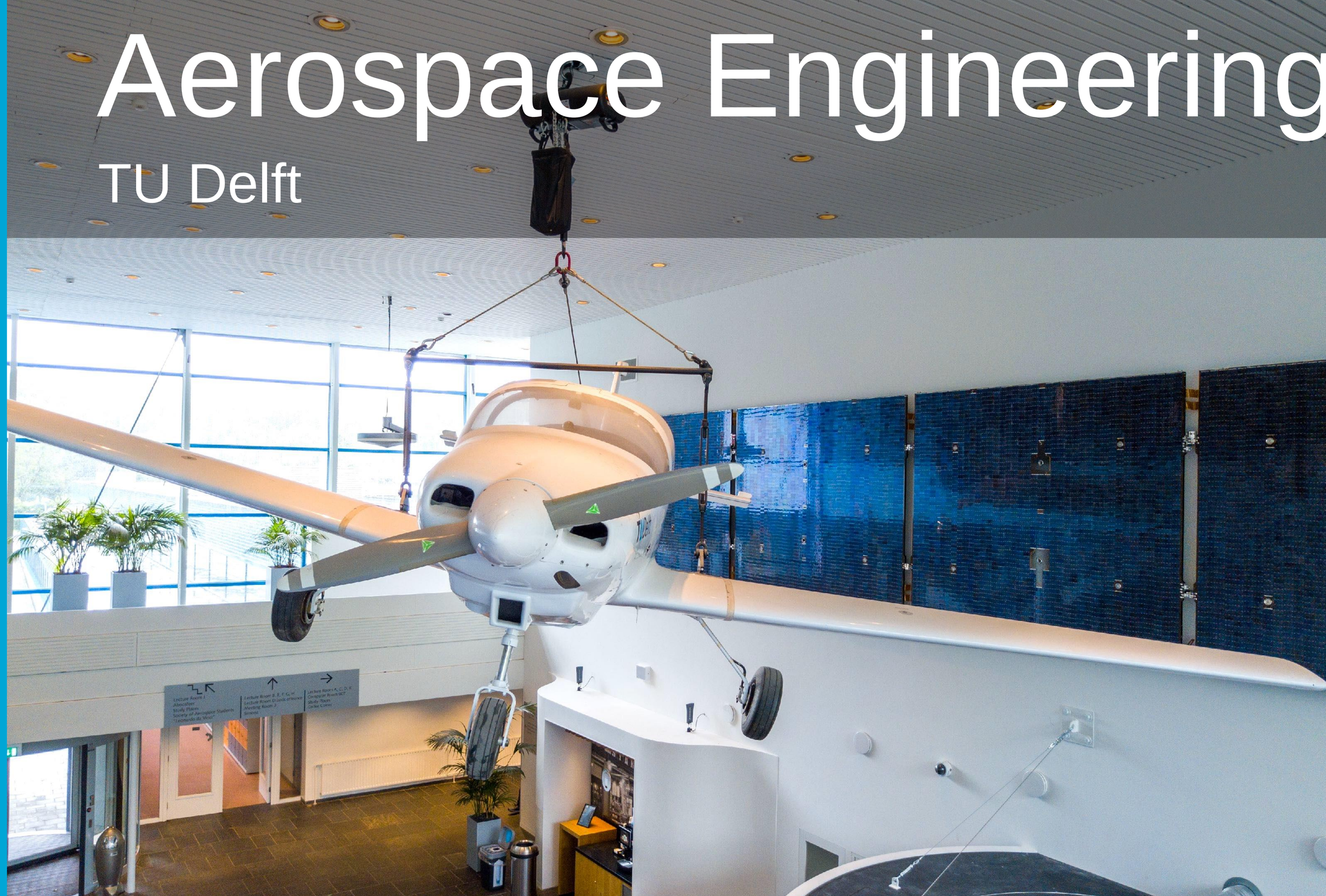
Aerospace Engineering

TU Delft



TU Delft

Aerospace Engineering

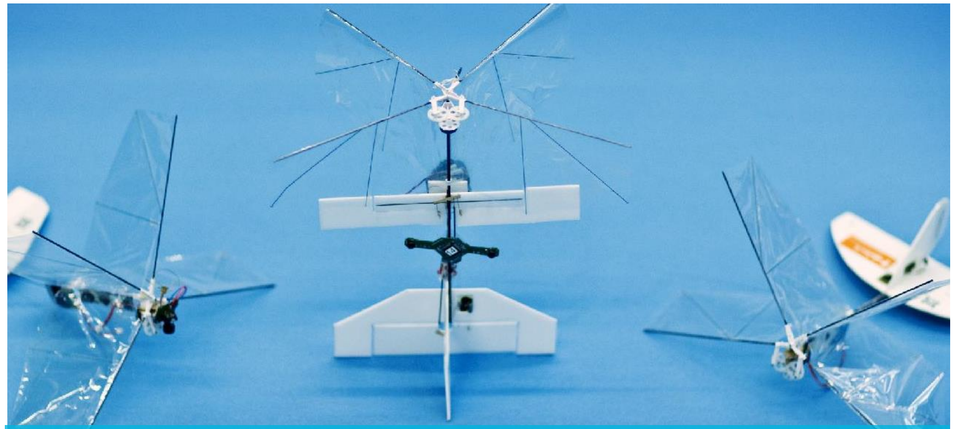
1. Challenges for the Aerospace Engineer
2. The Aerospace Engineering BSc programme
3. After the BSc: Master and career prospects
4. Are you a future Aerospace Engineer?
5. The life of an Aerospace Engineering student

Challenges

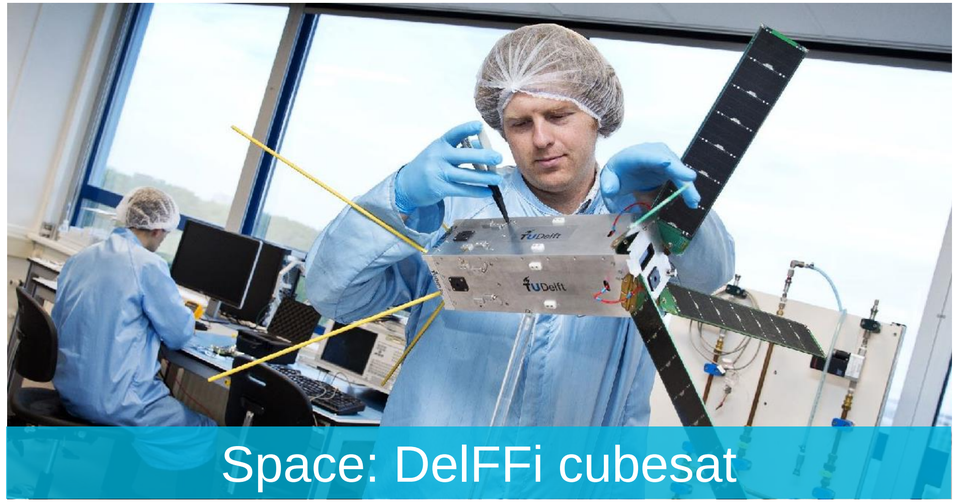
TU Delft

Challenges

Aeronautics: blended wing



Micro air vehicle: Delfly



Space: DelFFi cubesat

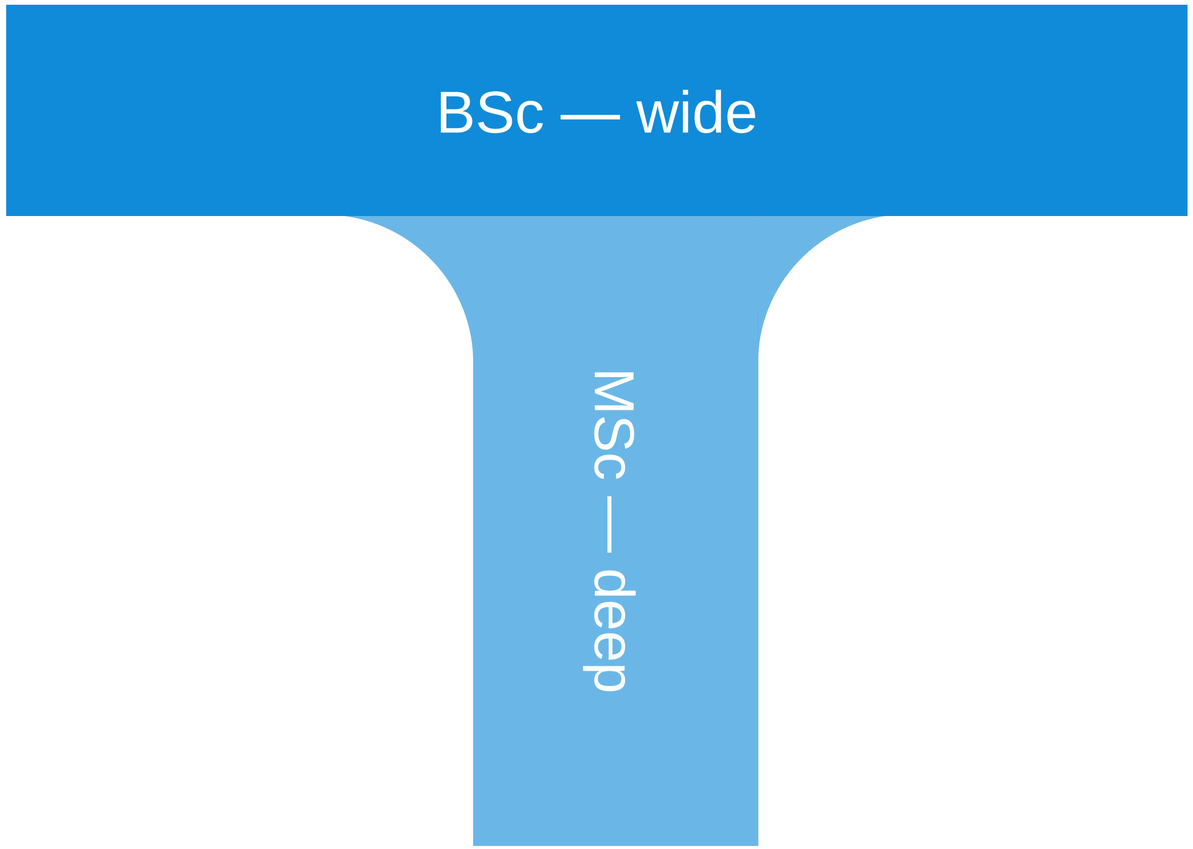
Wind energy: wind farms

BSc Programme

TU Delft

What to expect

Apply knowledge in different disciplines



BSc programme Aerospace Engineering

Three-year BSc: one common English programme

Notable characteristics:

Year 1 Binding Study Advice (BSA): obtain 45 of 60 ECTS
Year 2 Regular programme
Year 3 Minor (possibility to go abroad)

BSc graduation project: Design Synthesis Exercise

Internationally oriented

- Full English program (BSc & MSc)
- 2600 students at AE Faculty; 44% international
- Internships abroad, for example:

	United States:	Lockheed Martin
	Germany:	Airbus
	Australia:	Qantas
	Italy:	Ferrari

- Collaboration with foreign universities
  - France, Germany, Italy, Spain, Norway, UK

IDEA League

PEGASUS

TU Delft

Teaching methods

Lectures

- Large groups (300 students)
- Theoretical explanations by professor

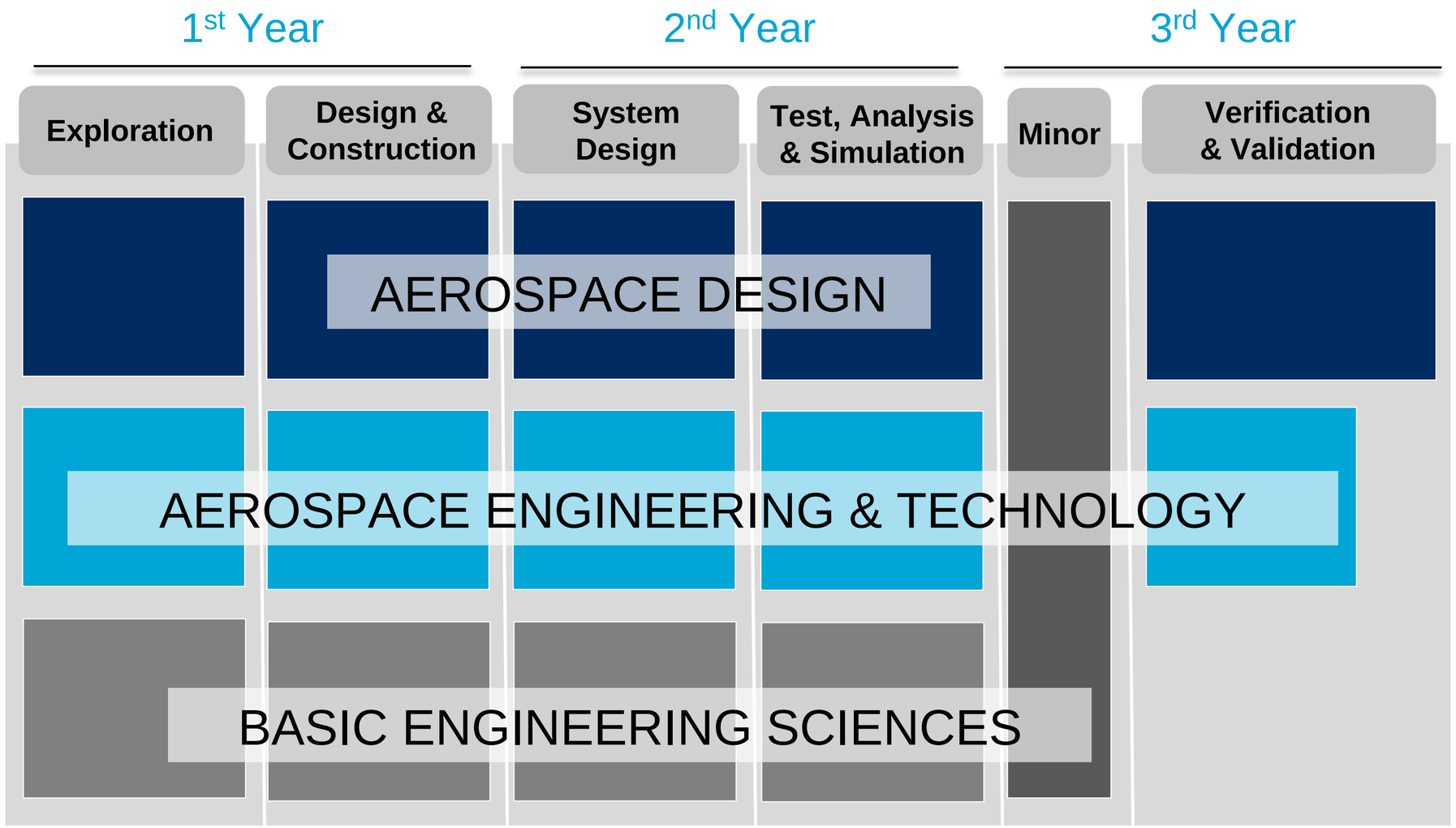
Activating education

- Smaller groups (40 students)
- Practice with theory
- Led by professor and senior students

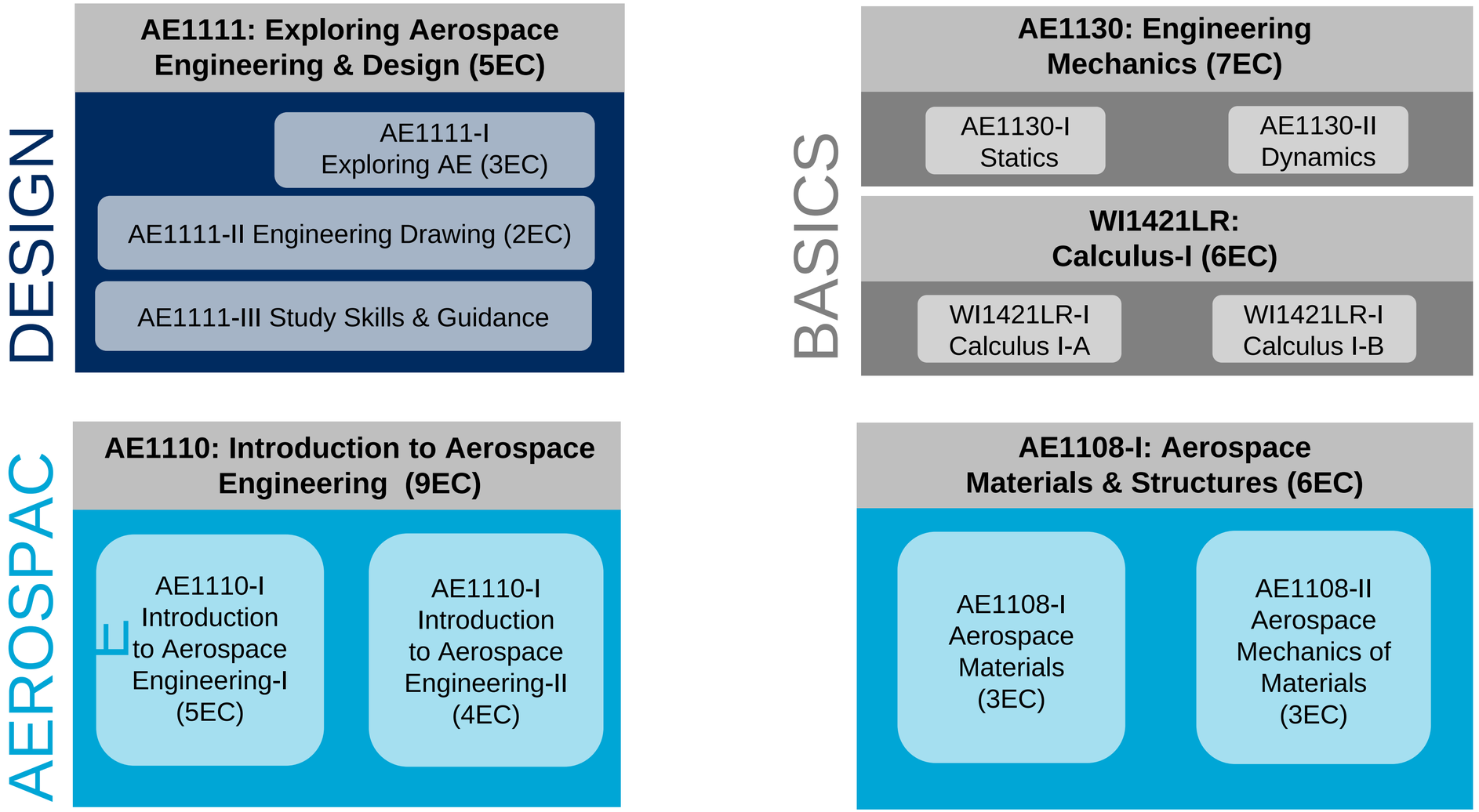
Projects

- Smaller groups (10 students)
- Application of theory
- Mentoring by senior students

BSc Curriculum



First Semester



Example: AE1110 – Introduction to AE

Themes

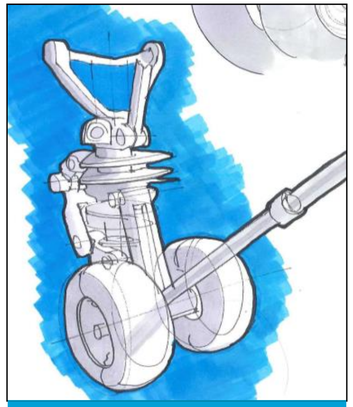
- 16 hr forces, moments, technology
  - lift, gravity, drag, thrust
- 14 hr aerodynamics
- 16 hr flight mechanics
- 14 hr materials and structures
- 20 hr rocket science &
  orbital mechanics

Teaching methods

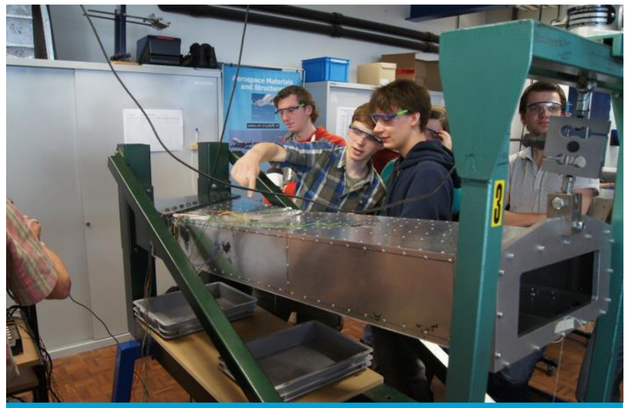
- lectures
- instruction sessions

BSc Projects

Flying Wing

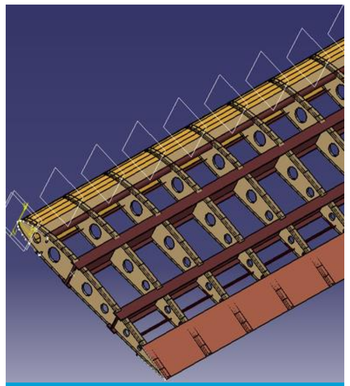


Engineering Drawing



Design & Construction

Flight Practical



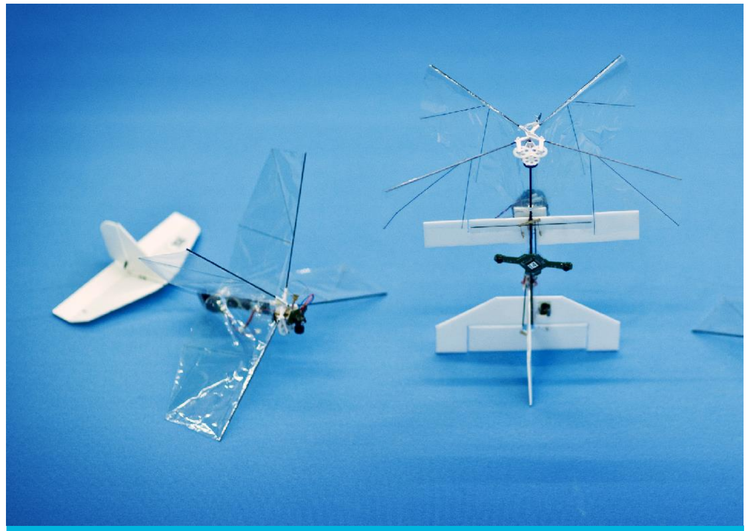
System Design

Design Synthesis Exercise

Design Synthesis Exercise (DSE)

10 weeks,10 people working full-time on one project
to gain *‘design experience in a realistic environment’*

Euroflyer



Delfly

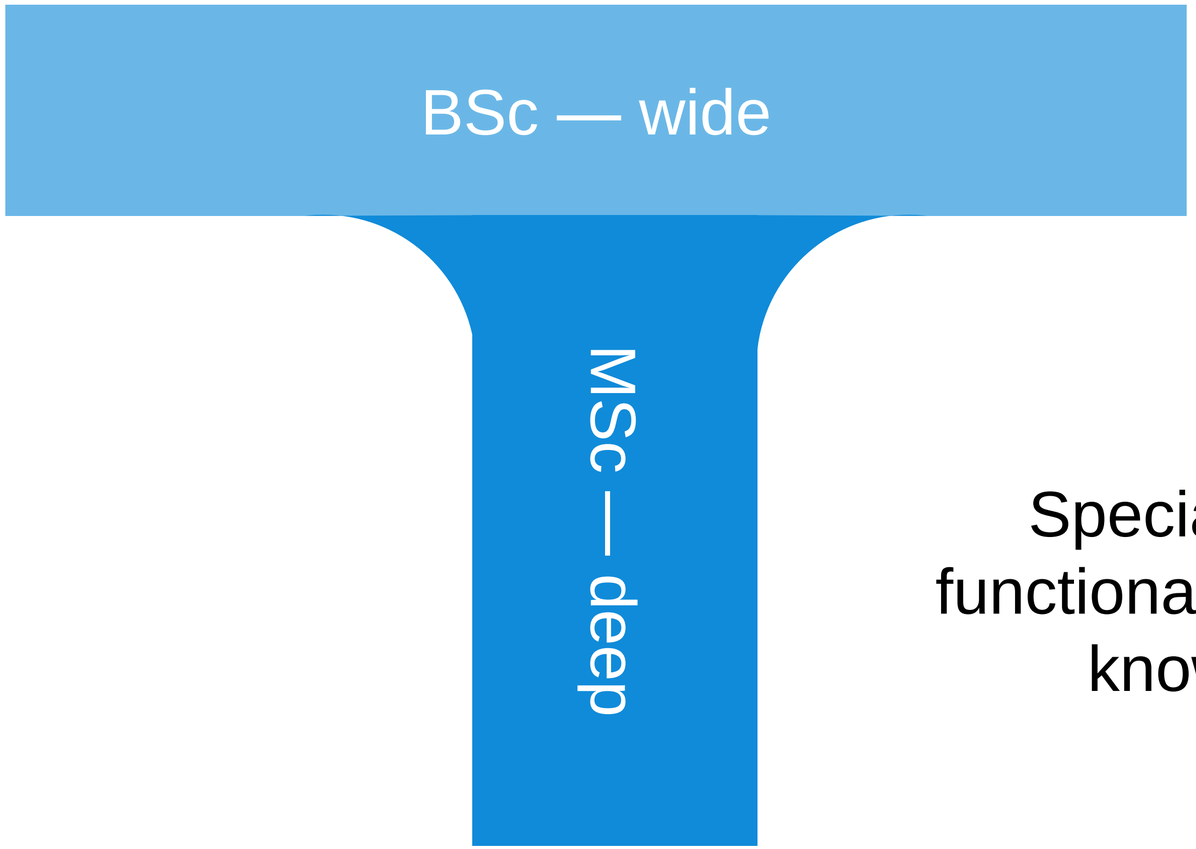
DelFFi

MSc & Career

TU Delft

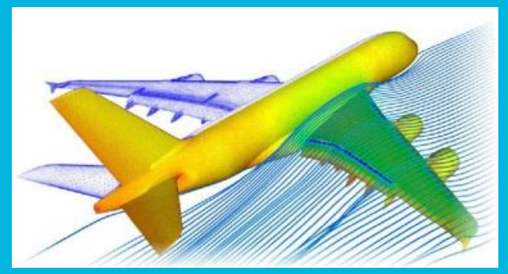
What to expect

Apply knowledge in different disciplines



Specialise with functional/disciplinary knowledge

MSc tracks



Aerodynamics
& Wind Energy

Flight Performance &
Propulsion

Control & Operations

Spaceflight

Aerospace Structures
& Materials

European Wind Energy
Master

MSc Aerospace Engineering

European Wind Energy Master

MSc programme

1st Year

- Core courses 15 EC
- Profile courses 17 EC
- Literature study 6–12 EC
- Research methodologies 2 EC
- Elective courses 17 EC

2nd Year

- Internship 18 EC
- MSc thesis project 42 EC

Career Prospects

40%

Aerospace Engineering industry
- aircraft- & component design
- satellite- & rocket industry

60%

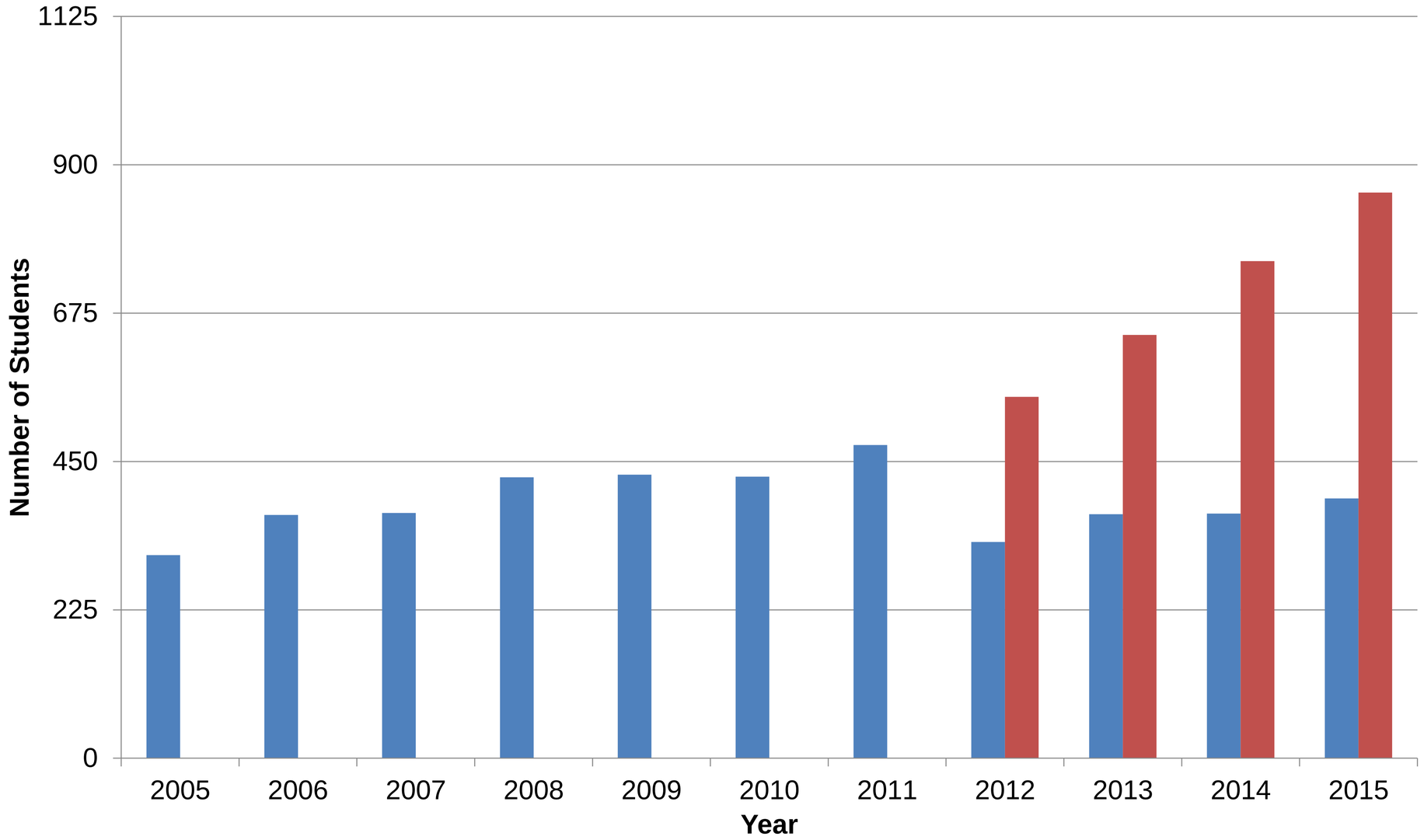
Other industries
- engineering
- consultancy
- management

Career Prospects

Are you a future Aerospace Engineer?

TU Delft

Numerus fixus — why?



Admission Requirements

International Baccalaureate

- English, Mathematics HL, Physics HL

German Abitur

- Mathematik, Physik, English

Belgian ASO

- Wiskunde (4), Fysica(1), Engels

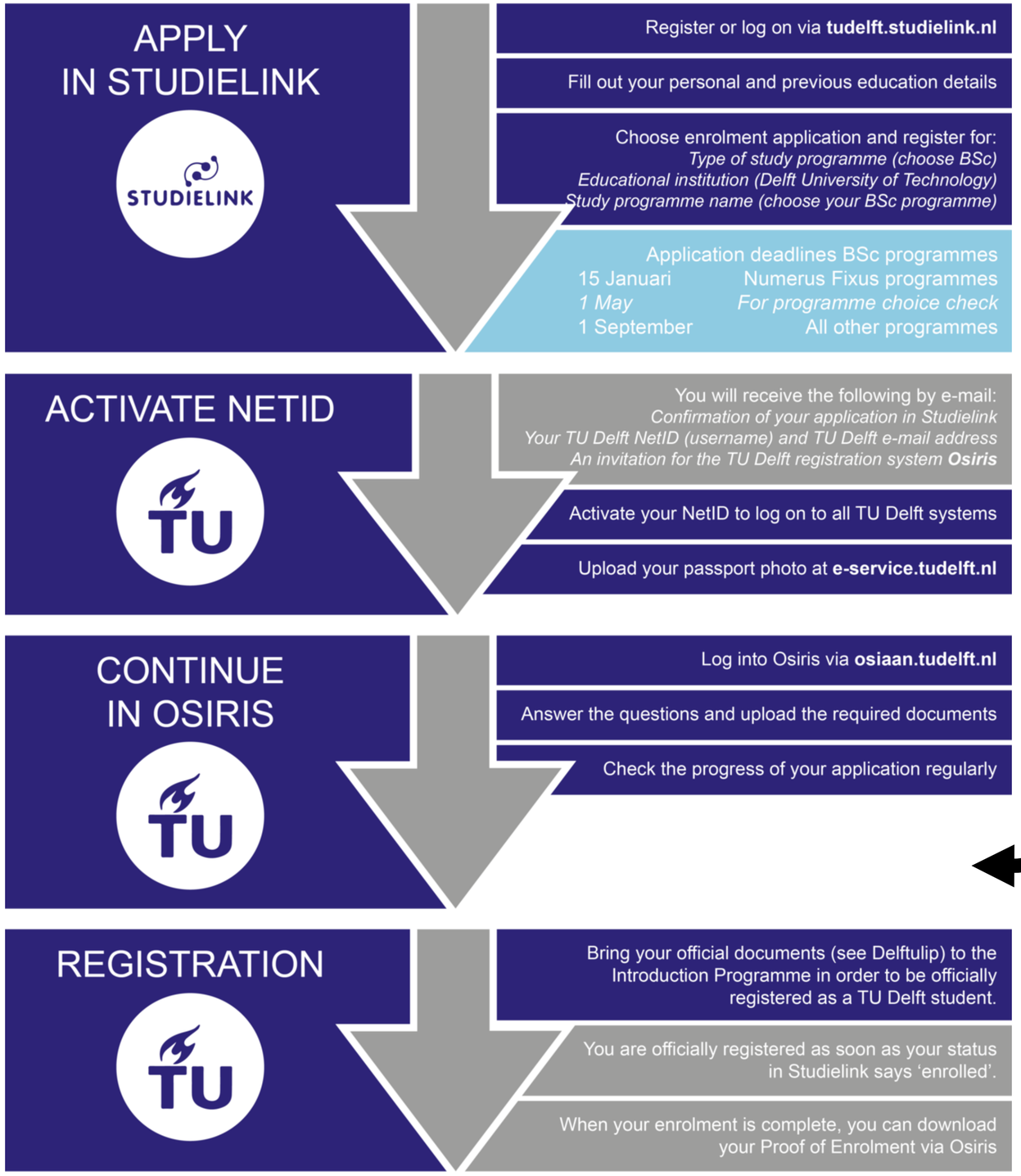
UK GCE/A Levels

- At least **6 GCSE certificates** in different subjects. 3 need to be finished on GCE A Levels (grades A*-C)
  - Mathematics A2, Physics A2

Admission Requirements

English language proficiency

- TOEFL iBT 90, IELTS 6.5 overall band score - academic version or Cambridge CPE or CAE
- Exemptions:
- Nationals from USA, UK, Ireland , Australia, New Zealand and Canada
- Applicants with an International Baccalaureate, European Baccalaureate diploma, or European secondary school diploma (pre-university certificate) considered equivalent to the Dutch pre-university education (VWO), with English as a final examination subject. Please note that a ‘pass’ (sufficient score) for English is required on your secondary school certificate.

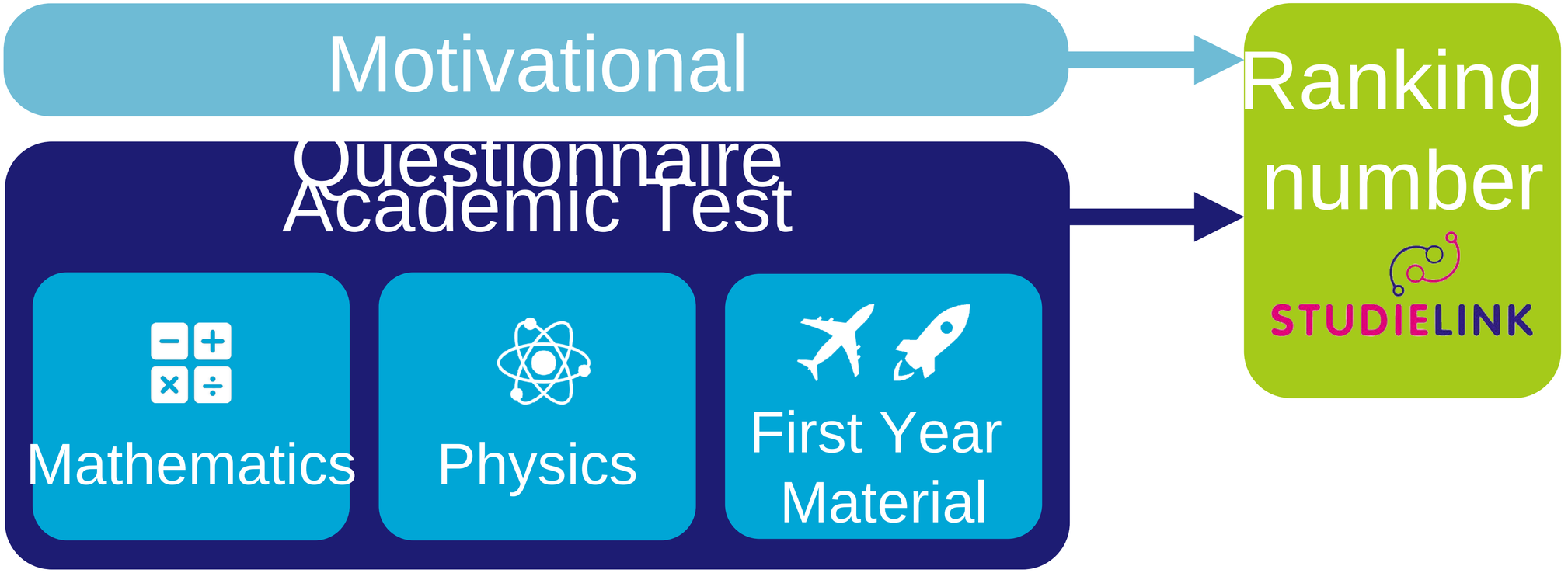


AE Selection procedure

Selection Procedure

Selection based on two main criteria:

Motivation and Academic Performance



Visit us at college fairs, open days and orientation days.
Studielink registration open from October onwards

January 15th Registration deadline

Do the mini-MOOC, an online introduction course, to get acquainted with the first year material.

January 31st Deadline mini-MOOC

Work on the Questionnaire on Motivation and Academic Attitude.

February 28th Deadline Questionnaire Motivation & Academic Attitude

Work on the three part academic test and write a reflection on your application procedure.

March 26th Deadline Academic Test

Answer self-reflection questions (before March 31st)
Wait for your ranking number

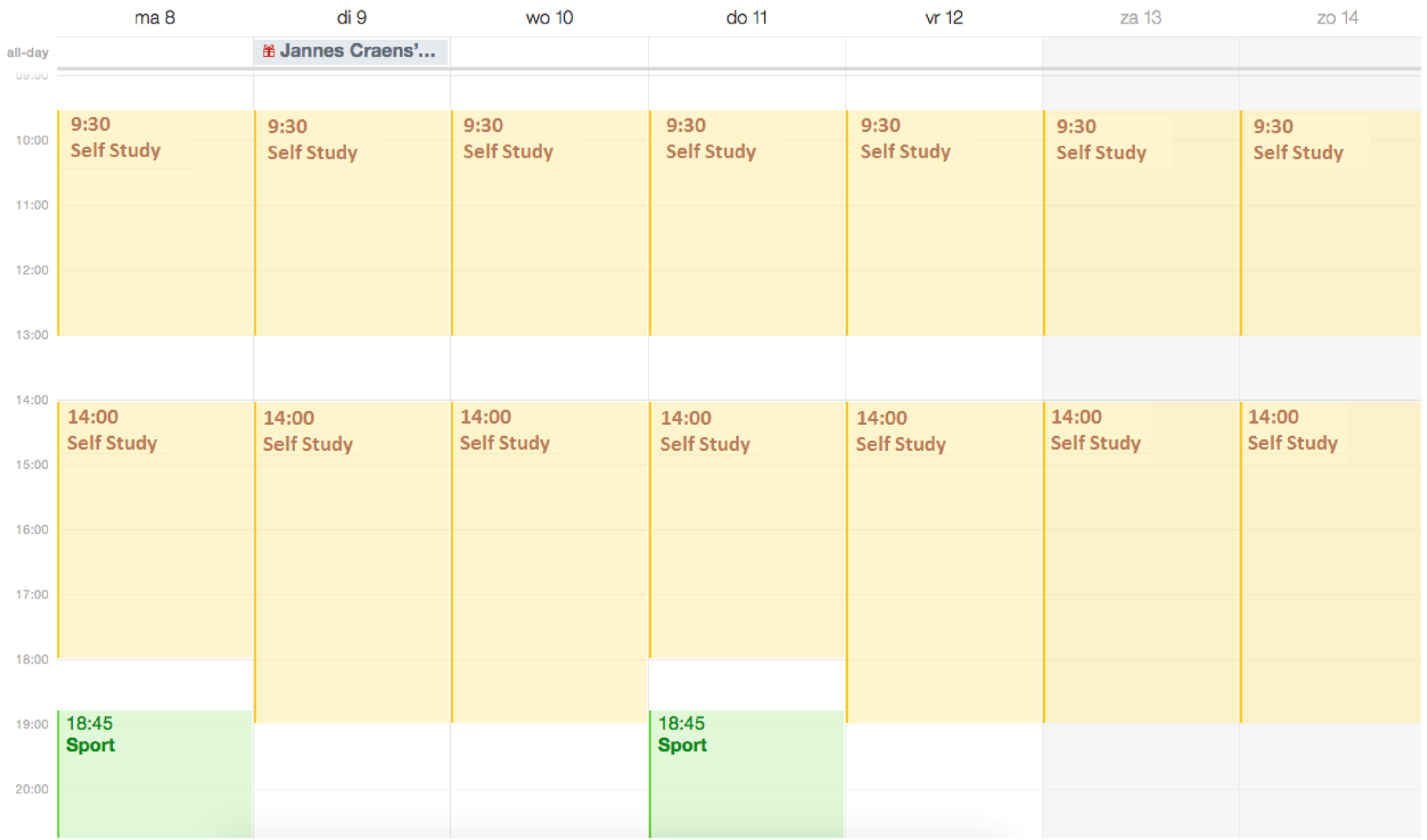
April 15th Receive ranking number

Life of an Aerospace student

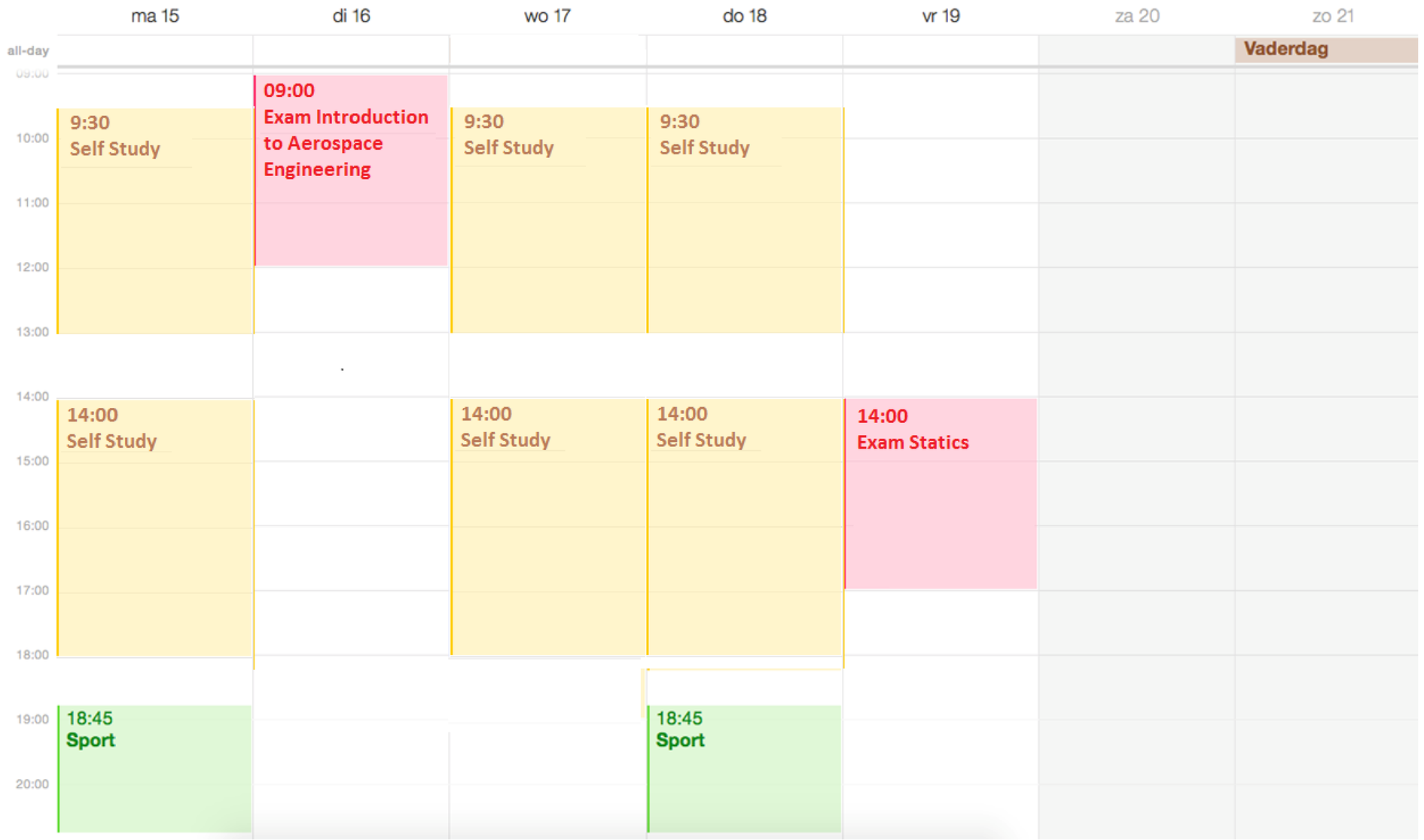
TU Delft

Daily Schedule – Lecture period

Daily Schedule – White Week



Daily Schedule – Exam Week



Study Associations

Society of Aerospace Engineering Students (VSV) ‘Leonardo da Vinci’

Board functions

Excursions

VSV Airshow

Freshmen weekend

Study Associations

EUROAVIA

‘The European Association of Aerospace Students’

SSVOBB

‘Stichting Studenten Vliegtuig- Ontwikkeling Lambach Vliegtuig’

DARE

‘Student Rocketry Association’

Dream Teams (Student Projects)

Nuon Solar Team

Ecorunner

Formula Zero

Novabike

DUT Racing Team

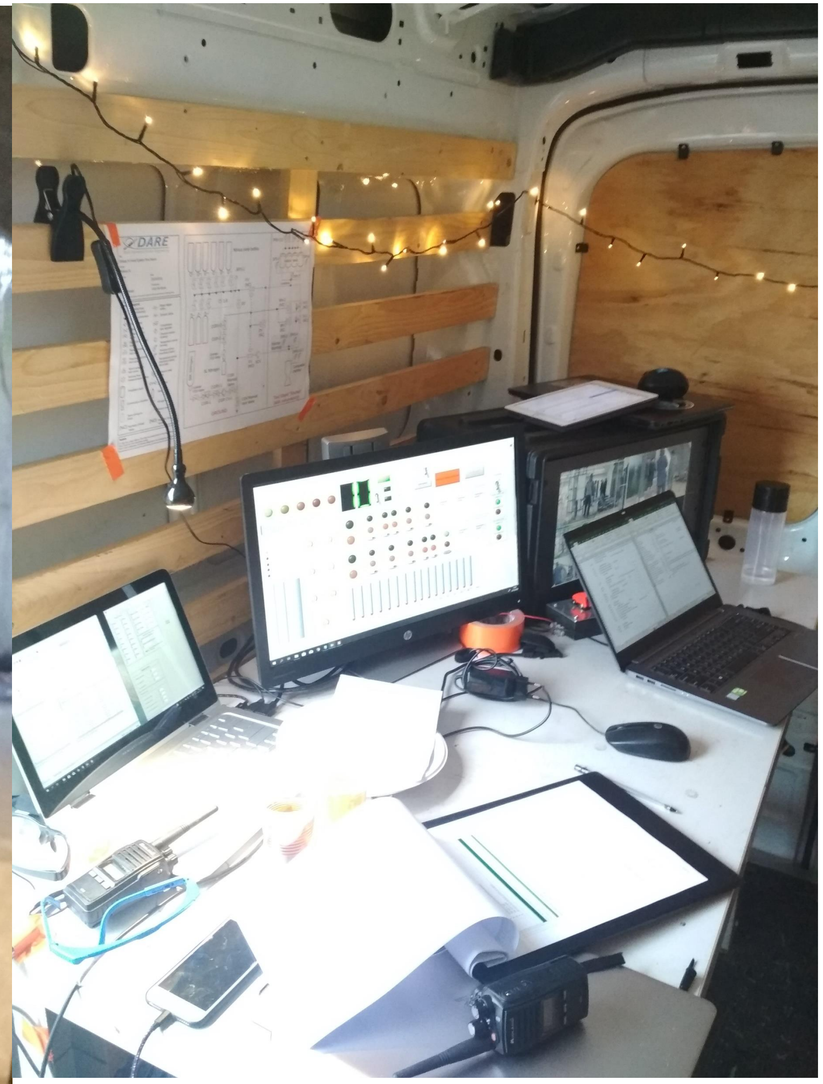
Human Power Team

DARE

- Delft
- Aerospace
- Rocket
- Engineering

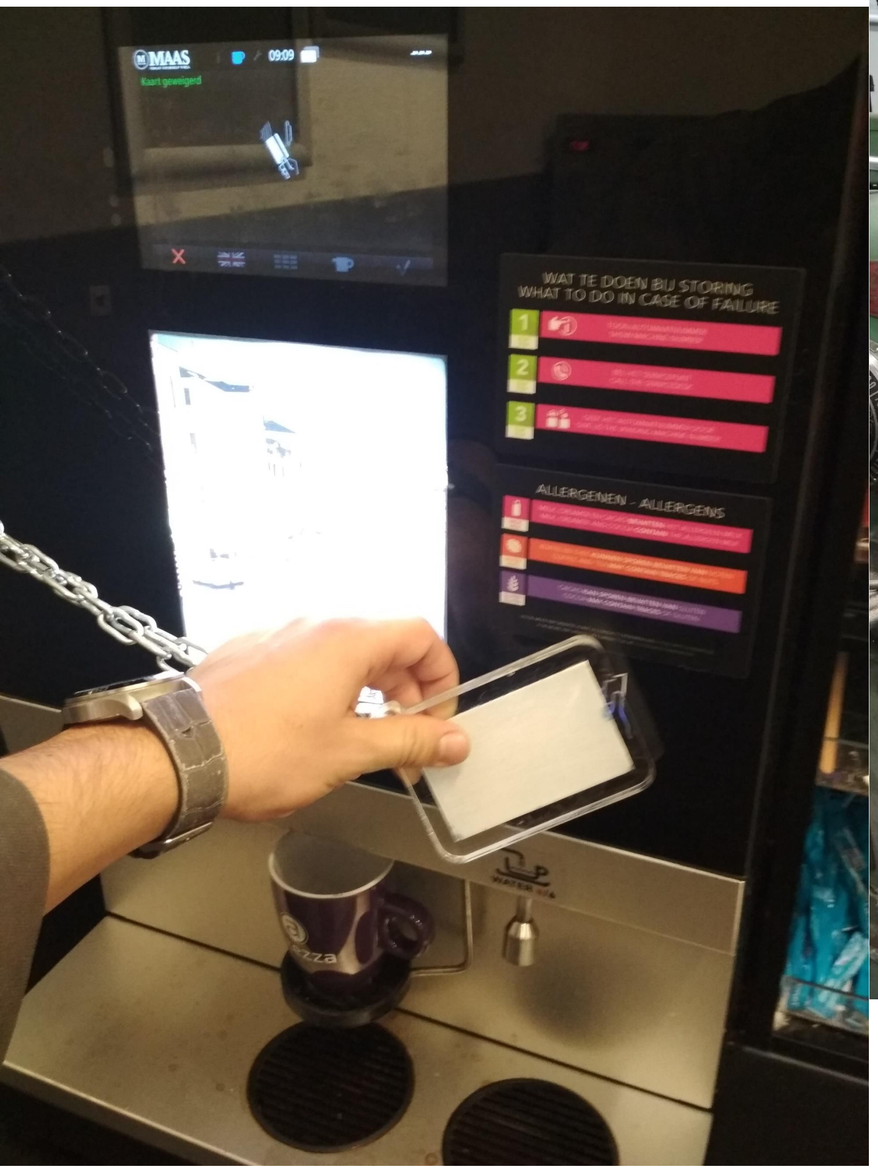
TU Delft

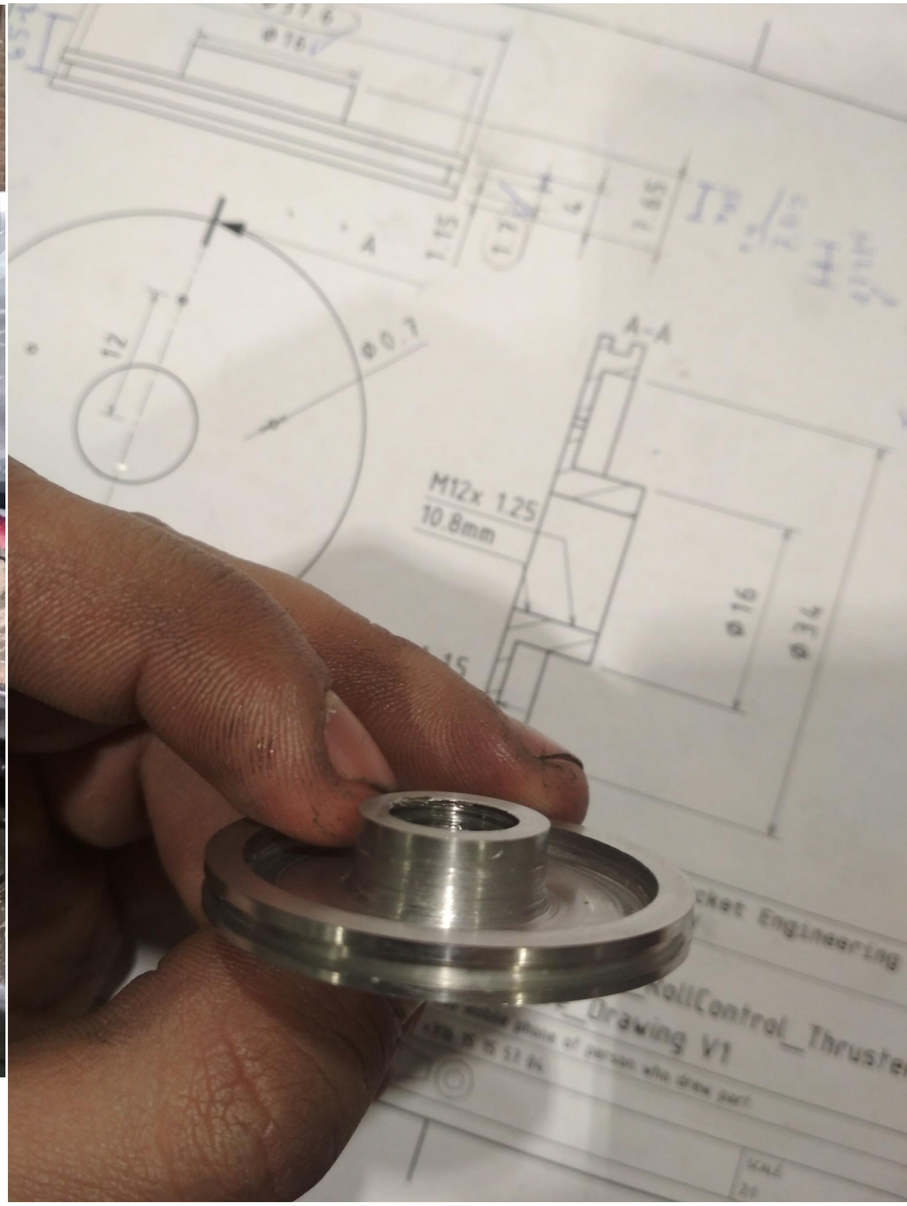
DARE



TU Delft

DARE


MAAS
09:09
Kaart geweigerd
WAT TE DOEN BIJ STORING
WHAT TO DO IN CASE OF FAILURE
1
2
3
ALLERGENEN - ALLERGENS


M12x 1.25
10.8mm
A-A
Drawing V1

Closing

Why TU Delft Aerospace Engineering?

- If you think aerospace is a ***fascinating topic*** to study.
- If you like solving challenging ***maths & physics*** problems
- If you're ***simply curious***
- If you want an ***internationally oriented*** education
- If you the combination of ***theory and practice*** appeals to you
- Or if you want a high quality MSc degree in engineering, which gives you opportunity for an ***international career***

Events

Mini-MOOC

Testing of knowledge

Mandatory part of selection procedure

International Open Days

November 23rd, December 8th

Tour of the faculty

Available on request

Contact Information

+31 (0)15 278 7192

Study-AE@tudelft.nl
www.ae.tudelft.nl

Twitter.com/AETUDelft

Facebook.com/TUDelftAerospaceEngineering

TU Delft