



POLITECNICO
MILANO 1863

Laurea Magistrale (Master of Science)
Aeronautical Engineering - Ingegneria Aeronautica

Presentation of the Study Programme

Lorenzo Dozio

26 may 2021

Outline

1. Preliminaries
2. Learning goals and professional opportunities
3. Admission (access requirements)
4. General organization of the Study Programme
5. Study plans (rules/constraints and typologies)
6. Educational Profiles (suggested educational pathways)
7. Master's Thesis and final exam
8. Additional activities and international mobility
9. Department of Aerospace Science and Technology

POLITECNICO DI MILANO

Strengths of our academic excellence:

- a high rate of employment among graduates
- a first-rate research attracting European funding
- a technology transfer activity among the best in Europe
- a role increasingly oriented towards social responsibility
- a prestigious international profile



16°	11°	6°	149°
ENGINEERING	ARCHITECTURE	DESIGN	OVERALL
QS RANKING 2020	QS RANKING 2020	QS RANKING 2020	+ 21 IN THE LAST 2 YEARS
1.400	1.100	260	1.200
PROFESSORS & RESEARCHERS	RESEARCH ASSISTANTS	INTERNATIONAL FACULTY (2017)	ADMINISTRATIVE STAFF
45.000	6.000	25	45
STUDENTS	FOREIGN STUDENTS	BS PROGRAMS	MS PROGRAMS

POLITECNICO DI MILANO

12 Departments

Aerospace Science and Technology

Architecture and Urban Studies

Architecture, Built Environment and Construction Engineering

Chemistry, Materials and Chemical Engineering

Civil and Environmental Engineering

Design

Electronics, Information and Bioengineering

Energy

Management, Economics and Industrial Engineering

Mathematics

Mechanics

Physics



POLITECNICO DI MILANO

4 Schools

- School of Architecture, Urban Planning, Construction Engineering
- School of Design
- School of Civil, Environment and Land Management Engineering
- **School of Industrial and Information Engineering**



POLITECNICO DI MILANO

Academic calendar

Two semesters:

1. mid September – December
2. end of February – beginning of June

Exam sessions:

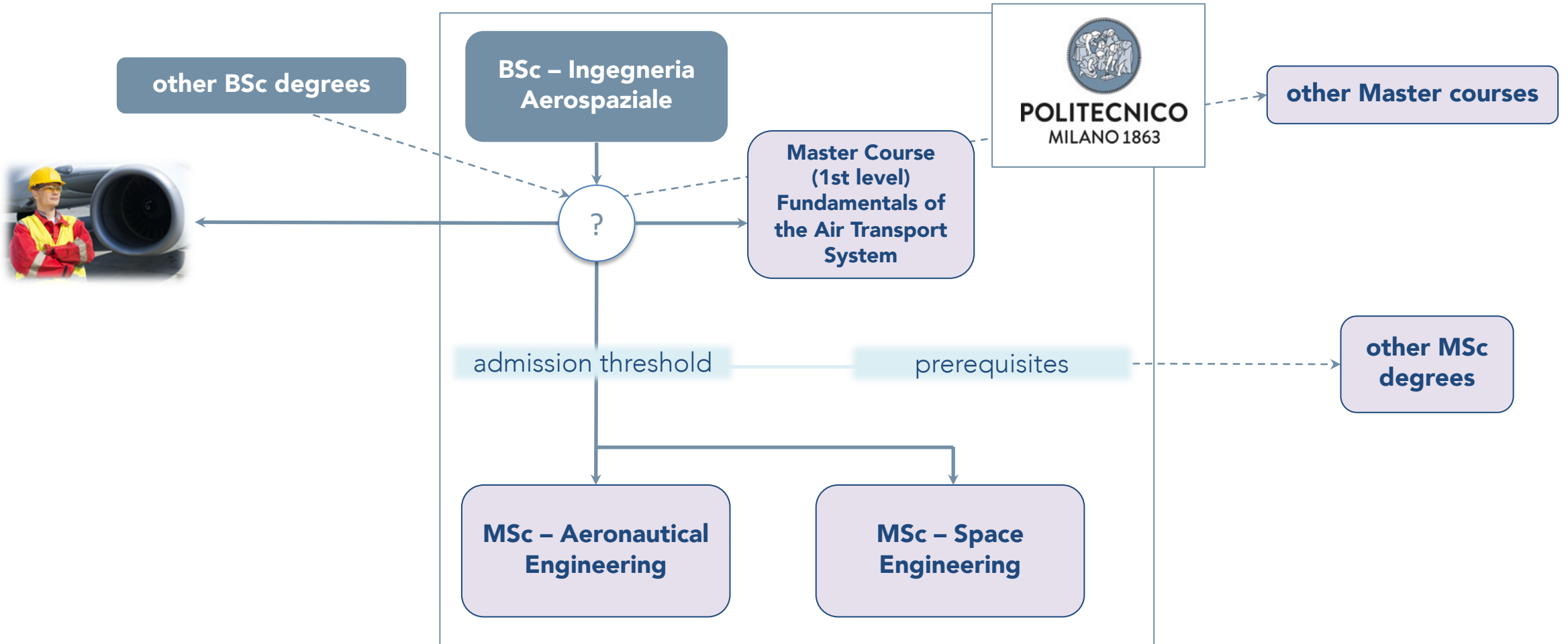
1. winter sessions (two calls– January and February)
2. summer session (two calls – June and July)
3. late summer session (one call – September)

Graduation days:

four per year (April, July, October, December)



Aerospace Engineering – Educational offer @Polimi

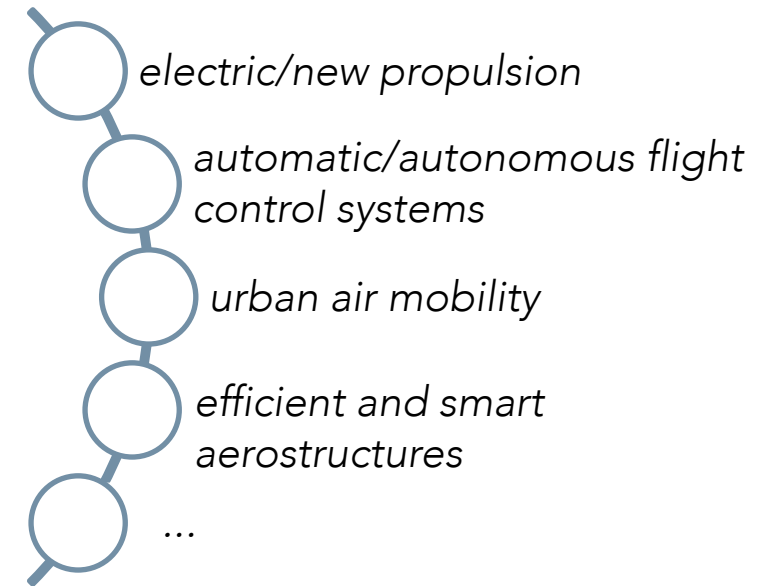


The future of aerospace



In the coming years, the aerospace sector will be faced with *new and important challenges*, which will require *professionals with advanced knowledge and specific skills*, able to successfully respond to technological problems of the present and future.

Technological innovation will be essential in determining the *air mobility of the future*, which will have to meet increasing demands for *efficiency, speed, connectivity, accessibility, autonomy and sustainability* in addition to *safety and reliability*.



Learning goals

The general learning objective is to train engineers with a **high technical/scientific preparation**, equipped with knowledge and skills related to the **main engineering disciplines characterising the aeronautical sector**, in an educational context that also aims to develop the **capacity for interdisciplinary integration** and the aptitude to successfully tackle new and complex problems in a scientifically rigorous manner within dynamic and highly internationalised environments.

The course is structured to provide all students with a common knowledge and understanding of some topics considered fundamental, such as **aerodynamics, aircraft performance and dynamics, aerospace structures, structural dynamics and aeroelastic interaction**.

These elements are considered essential in order to meet the specific learning and **professionalisation/specialisation objectives** that students will set themselves by choosing the proposed courses, giving priority to disciplinary aspects (**specialized courses**) or multidisciplinary aspects (**complementary courses**), thus optimally matching their interests/aptitudes with the skills profiles required by the labour market.



Professional opportunities





- aeronautical and space industries for the design, production and operation of aircraft, vertical take-off aircraft, spacecraft and their components
- companies operating in aerospace related businesses (industrial partners, subcontractors, engineering consultancy companies)
- public bodies for testing and/or certification in the aeronautical and aerospace field;
- industries designing and producing machinery, equipment and systems in which aerodynamics, light structures, advanced materials, fluid/structure interaction and/or integration with active control systems are significant

Professional opportunities – Graduate employment

**GRADUATE
EMPLOYMENT
DATA BOOK 2020
5 YEARS AFTER**

AERONAUTICAL ENGINEERING


**POLITECNICO
MILANO 1863**

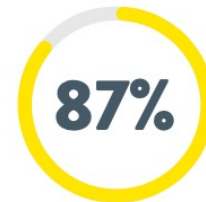
 **CareerService**
www.careerservice.polimi.it

EMPLOYMENT RATE



HAS DECREASED BY 2%*

PERMANENT CONTRACT



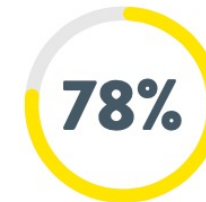
HAS INCREASED BY 33%*

NET MONTHLY SALARY

€2,147**

HAS INCREASED BY €466*

WORK IN ITALY



HAS DECREASED BY 12%*



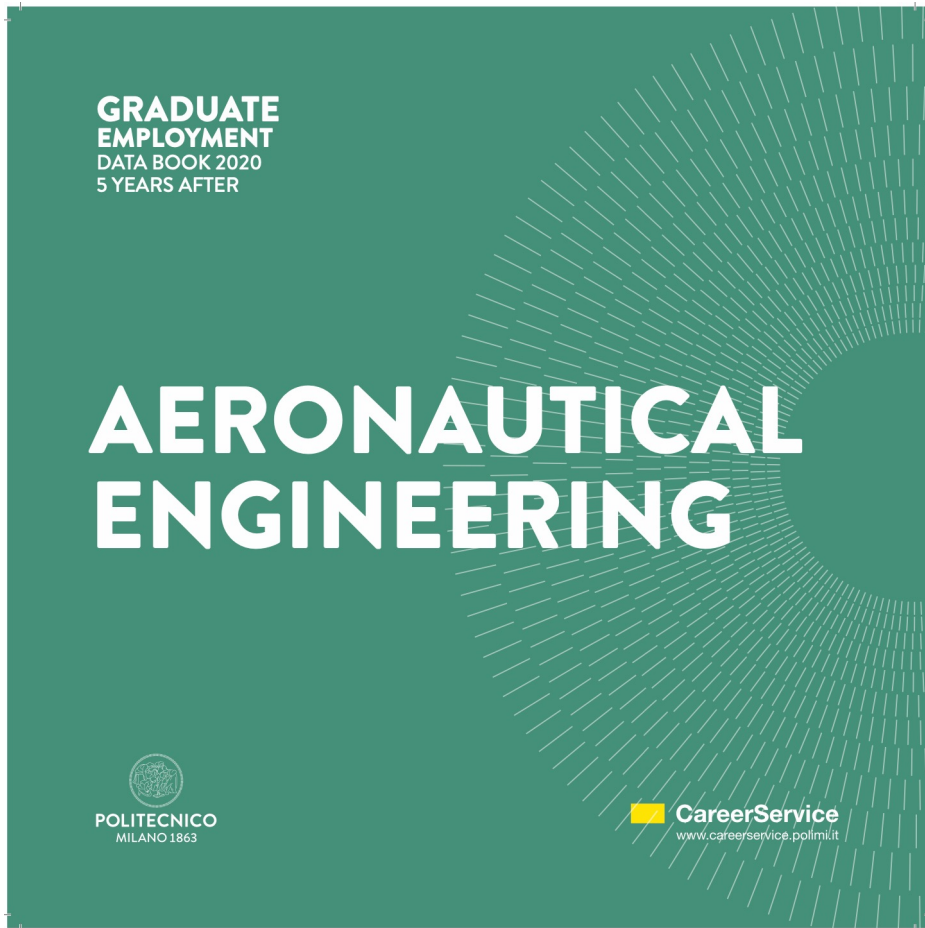
SATISFIED WITH SPECIFIC DEGREE: 88%

Education and training acquired at the university is adequate for the current job

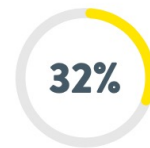
DEGREE FITS WORK: 90%

In order to carry out their job, they need their qualification or an equivalent one

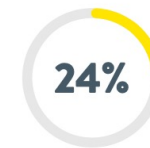
Professional opportunities – Graduate employment



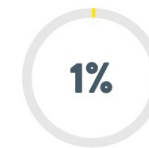
WHAT HAVE AERONAUTICAL ENGINEERING GRADUATES DONE IN THESE 5 YEARS?



HAVE WORKED ABROAD
FOR AT LEAST 6 MONTHS
(GERMANY, FRANCE, UK)



HAVE OBTAINED A NEW DEGREE
WHILE WORKING OR BEFORE
13% POST MASTER DEGREE | 11% PHD



HAVE FOUNDED
A START-UP

THEY HAVE CHANGED THEIR JOB AN AVERAGE OF 1.7 TIMES

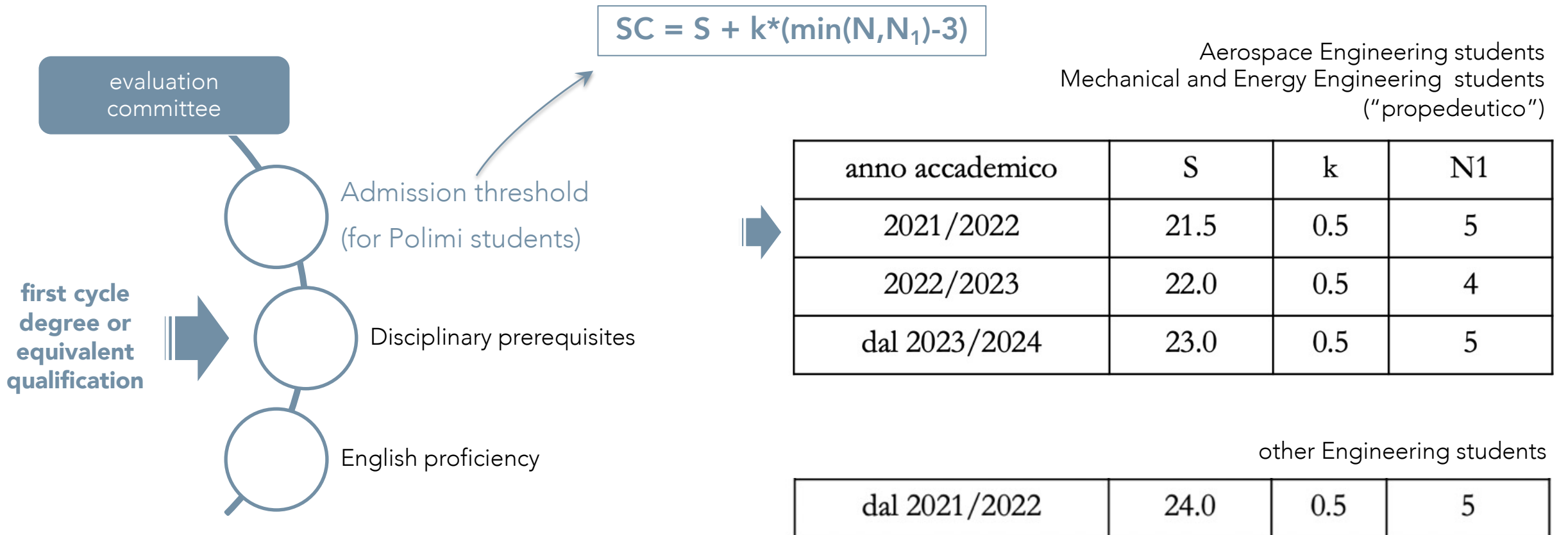
MAIN REASONS:



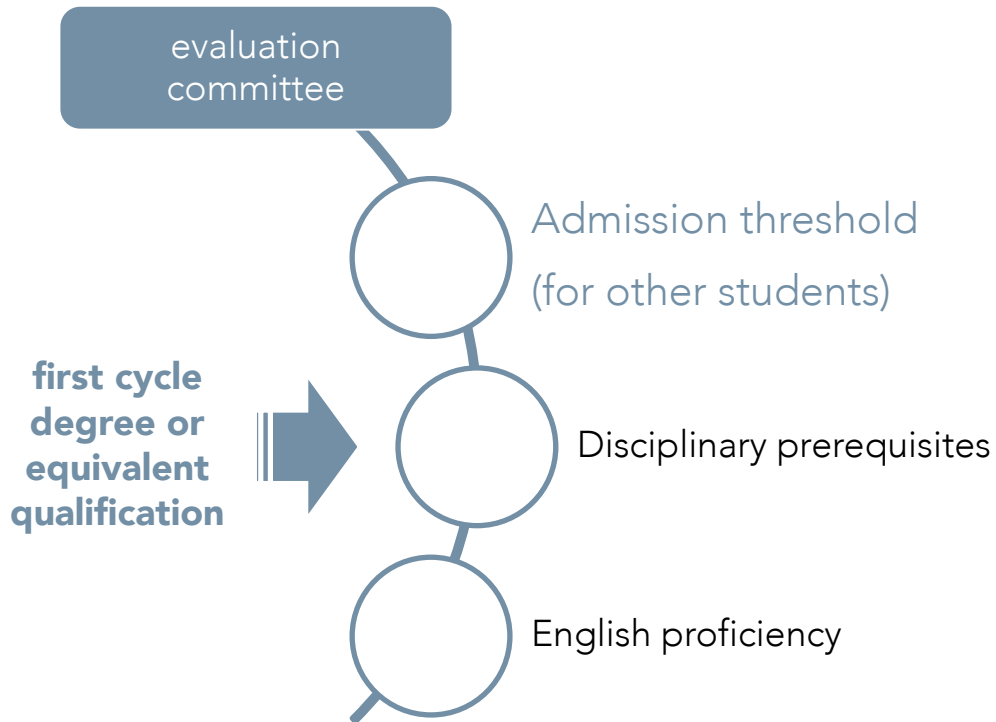
THEY HAVE IMPROVED THEIR PROFESSIONAL SITUATION:



Admission – access requirements



Admission – access requirements



Candidates with a BSc issued by an Italian University

Threshold

From Aerospace Eng.
Final average in the
BSc $\geq 25/30$

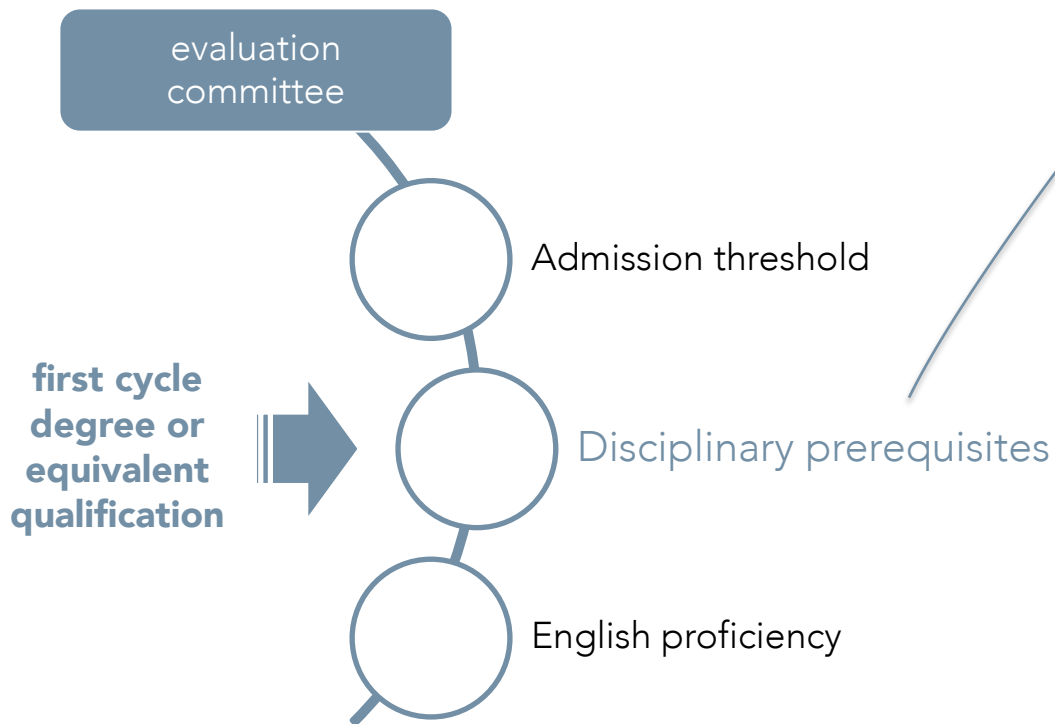
From other BSc
Final average in the
BSc $\geq 26/30$

Candidates with a BSc issued by a foreign University

Threshold

weighted combination of the final mark got at the BSc degree and the ranking of the University

Admission – access requirements

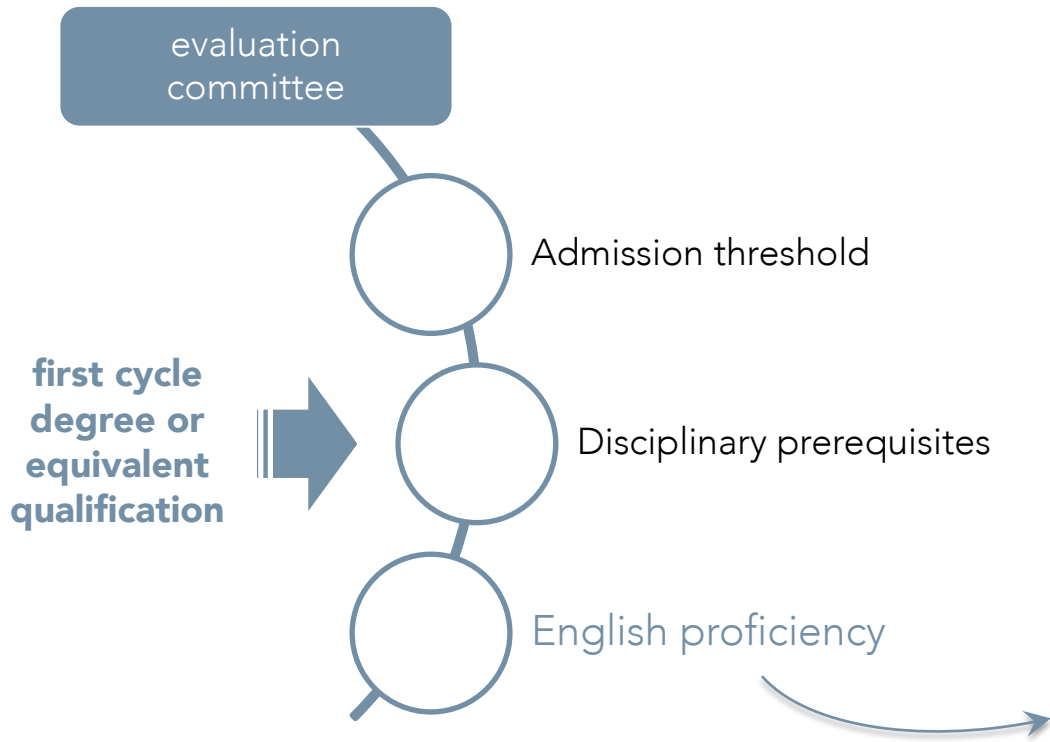


All Polimi graduates in Aerospace Engineering, Mechanical Engineering (“propedeutico”) and Energy Engineering (“propedeutico”) are admitted without curricular integrations.

All other applicants with a first-level degree in an Engineering degree class (L-7, L-8 or L-9), in order to be admitted without curricular integrations, must have obtained a number of credits (CFU) greater than or equal to that shown in the table in each of the indicated subject areas.

Ambito scientifico-disciplinare	CFU
Meccanica dei solidi (ING-IND/04, ICAR/08)	5
Meccanica teorica/applicata (MAT/07, ING-IND/13)	5
Analisi numerica (MAT/08)	5
Meccanica dei fluidi (ING-IND/06, ICAR/01)	5

Admission – access requirements



Test/certification	Level requested
ETS - TOEFL (Test of English as a Foreign Language)	Paper Based ≥ 547 (total score) Computer Based ≥ 210 (total score) Internet Based ≥ 78 (total score)
ETS - TOEIC (Test of English for International Communication)	≥ 720
CAMBRIDGE	\geq FCE - GRADE B or \geq CAE - GRADE C
IEL TS (International English Language Testing System)	≥ 6
TRINITY COLLEGE	\geq ISE II

General organization

Educational activities	semester	credits	year
4 mandatory core courses	1,2	40	1
1 elective course (specialized)	2	8	
2 elective courses (complementary)	2	12	
Elective courses (specialized/complementary)	1,2	40	2
Thesis and final exam	1,2	20	

The architecture allows students to build up an educational pathway that enables them to make the most of their interests and aptitudes.

There is a **wide and diversified choice of subjects**, particularly in the second year of the course, so that most of the requirements can be met within the proposals contained in the Study Programme, without the need for an autonomous study plan (which is still possible).



General organization (first year)

4 mandatory core courses	1,2	40
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Educational activities

TYPE B: specialized courses – focused on aerospace subjects (flight mechanics, aerostructures, propulsion, aerodynamics, ...)

TYPE C: complementary courses – related to (but not directly focused on) aerospace subjects (e.g., mechanical systems, control systems, energy systems, management, ...)

TYPE -: other courses/activities

Type	Course	Lang	Sem	CFU	CFU Group
B	AERODINAMICA	IT	1	10.0	10.0
B	AERODYNAMICS	EN	1	10.0	
B	STRUTTURE AEROSPAZIALI	IT	1	10.0	10.0
B	AEROSPACE STRUCTURES	EN	1	10.0	
B	PRESTAZIONI E DINAMICA DEL VELIVOLO	IT	1	10.0	10.0
B	AIRPLANE PERFORMANCE AND DYNAMICS	EN	1	10.0	
B	DINAMICA STRUTTURALE E AEROELASTICITA'	IT	2	10.0	10.0
B	STRUCTURAL DYNAMICS AND AEROELASTICITY	EN	2	10.0	

General organization (first year)

1 elective course (specialized)	2	8
2 elective courses (complementary)	2	12

Group AER6

Type	Course	Lang	Sem	CFU
C	AEROSPACE CONTROL SYSTEMS	EN	2	6.0
C	GESTIONE DEI PROGETTI AEROSPAZIALI	IT	2	6.0
C	HEAT TRANSFER AND THERMAL ANALYSIS	EN	2	6.0
C	MACHINE DESIGN	EN	2	6.0
C	NUMERICAL MODELING OF DIFFERENTIAL PROBLEMS	EN	2	6.0
C	OPERATIONS RESEARCH	EN	2	6.0
C	WIND ENGINEERING	EN	2	6.0

Group AER8

Type	Course	Lang	Sem	CFU
B	COMBUSTION IN THERMOCHEMICAL PROPULSION	EN	2	8.0 [2.0 (di)]
B	COMPRESSIBLE FLUID DYNAMICS	EN	2	8.0
B	STRUCTURAL ANALYSIS OF AEROSPACE VEHICLES	EN	2	8.0
B	STRUMENTAZIONE AERONAUTICA	IT	2	8.0 [1.5 (di)]

General organization (second year)

Elective courses (specialized/complementary)	1,2	40	2
Thesis and final exam	1,2	20	




Educational activities	Type	Sem	CFU	CFU Group
Courses to be chosen from Group AER8-II	–	1	–	40.0
Courses to be chosen from Group AER6-II	–	1,2	–	
Courses to be chosen from Group OTHER	–	2	–	
THESES AND FINAL EXAM	V	1	20.0	20.0
THESES AND FINAL EXAM	V	2	20.0	



General organization (second year) – Group AER8-II

Type	Course	Lang	Sem	CFU
B	AEROSERVOELASTICITY OF FIXED AND ROTARY WING AIRCRAFT	EN	1	8.0
B	AEROSPACE TECHNOLOGIES AND MATERIALS	EN	1	8.0
B	AEROSTRUCTURES DESIGN AND TESTING	EN	1	8.0
B	COMPUTATIONAL FLUID DYNAMICS	EN	1	8.0
C	COMPUTATIONAL TECHNIQUES FOR THERMOCHEMICAL PROPULSION	EN	1	8.0
B	ESTIMATION AND LEARNING IN AEROSPACE	EN	1	8.0
B	FLUIDODINAMICA SPERIMENTALE	IT	1	8.0
B	GESTIONE INTEGRATA DEI SISTEMI PRODUTTIVI AERONAUTICI <i>in co-operation with Leonardo S.p.A.</i>	IT	1	8.0









Type	Course	Lang	Sem	CFU
B	LAUNCH SYSTEMS	EN	1	8.0 [1.5 ^(di)]
B	MODELING AND SIMULATION OF AEROSPACE SYSTEMS	EN	1	8.0
B	NON-LINEAR ANALYSIS OF AEROSPACE STRUCTURES	EN	1	8.0
B	PROGETTO DI VELIVOLI	IT	1	8.0
B	ROTORCRAFT DESIGN	EN	1	8.0
C	TECNOLOGIE DEI SISTEMI DI CONTROLLO PER L'AERONAUTICA	IT	1	8.0
C	TURBOMACHINERY B	EN	1	8.0
B	TURBULENCE: PHYSICS AND MODELING	EN	1	8.0

General organization (second year) – Group AER6-II

Type	Course	Lang	Sem	CFU
B	ADAPTIVE AND AUTONOMOUS AEROSPACE SYSTEMS	EN	1	6.0
B, C	AERODYNAMICS OF TRANSPORT VEHICLES	EN	1	6.0
C	HIGH-TECH STARTUPS: CREATING AND SCALING UP I	EN	1	6.0 [6.0 
C	MECHANICAL SYSTEMS RELIABILITY	EN	1	6.0
B	PROGETTO DI GENERATORI EOLICI	IT	1	6.0
B	ROTOR AERODYNAMICS	EN	1	6.0
B	AEROACOUSTICS	EN	2	6.0
B	FUNDAMENTALS OF HYPERSONIC FLOWS	EN	2	6.0
C	GESTIONE DEI PROGETTI AEROSPAZIALI	IT	2	6.0

Type	Course	Lang	Sem	CFU
B	METODI AVANZATI PER LA PROGETTAZIONE DI STRUTTURE AEROSPAZIALI	IT	2	6.0 [3.0 
B	MOTORI PER AEROMOBILI	IT	2	6.0
B	MULTIBODY SYSTEM DYNAMICS	EN	2	6.0
C	OPERATIONS RESEARCH	EN	2	6.0
B	PROGETTO AERODINAMICO	IT	2	6.0 [3.0 
B	SICUREZZA PASSIVA DELLE STRUTTURE	IT	2	6.0
B	SPACE PROPULSION B	EN	2	6.0
B	SPERIMENTAZIONE IN VOLO	IT	2	6.0
B	SPERIMENTAZIONE NEI PROPULSORI	IT	2	6.0

General organization (second year) – Group OTHER

Type	Course	Lang	Sem	CFU
–	INTRODUCTION TO RESEARCH*	EN	2	2.0 [2.0 
–	COMMUNICATION AND ARGUMENTATION B	EN	2	3.0 [3.0 
–	CRITICAL THINKING	EN	2	3.0 [3.0 
–	EMERGING TECHNOLOGIES AND SOCIETAL CHALLENGES	EN	2	3.0 [3.0 
–	ETHICS FOR TECHNOLOGY B	EN	2	3.0 [3.0 
–	SOCIAL HISTORY OF TECHNOLOGY AND DIGITAL INFRASTRUCTURES	EN	2	3.0 [3.0 
B	TECHNICAL AND SCIENTIFIC COMMUNICATION*	EN	2	2.0 [2.0 
–	THE SOCIAL SHAPING OF TECHNOLOGY	EN	2	3.0 [3.0 

Study plans – general constraints

The study plan is approved in advance if it is completed in accordance with the constraints set out on the right.



Compliance with these constraints is reflected in the compilation of a plan conforming to one of the schemes belonging to the standard typologies (A, B, C and D) described in the following.

General constraints:

- **at least 58 credits in educational activities of type B** (specialized aerospace courses)
- **at least 12 credits in educational activities of type C** (complementary courses)

The organisation of the Study Programme is such that the study plan may be approved in advance if **the first year of the course reflects the general organisation of the degree course** and if in the second year the choice of subjects complies with the following constraints:

- **courses from the Group OTHER: min 0 – max 5 credits**
- **courses from the Group AER8-II: min 16 – max 40 credits**
- **courses from the Group AER6-II: min 0 – max 24 credits**

Study plans – typologies (approval in advance)

First year

4 mandatory core courses (40 credits)
1 course from Group AER8 (8 credits)
2 courses from Group AER6 (12 credits)

Typology A

Year 2:
3 courses from Group AER8-II
2 courses from Group AER6-II
2 courses from Group OTHER
Thesis (20 credits)

Distribution of credits
(second year): 30/30 (nominal)

Typology B

Year 2:
4 courses from Group AER8-II
1 course from Group AER6-II
1 course from Group OTHER
Thesis (20 credits)

Distribution of credits
(second year): 32/28 (nominal)

Typology C

Year 2:
2 courses from Group AER8-II
4 courses from Group AER6-II
0 courses from Group OTHER
Thesis (20 credits)

Distribution of credits
(second year): 28/32 (nominal)

Typology D

Year 2:
5 courses from Group AER8-II
0 courses from Group AER6-II
0 courses from Group OTHER
Thesis (20 credits)

Distribution of credits
(second year): 40/20

Study plans – typologies (approval in advance)

Typology A

Year 2:

3 courses from Group AER8-II (24 credits)

2 courses from Group AER6-II (12 credits)

2 courses from Group OTHER (4+ credits)

Thesis (20 credits)

Distribution of credits

(second year): 30/30 (nominal)

“free” means B or C

Example



Types				Educational activities	Year	Sem	CFU
A1	A2	A3	A4				
				Year 1	1	1	60.0
3 B	2 B + 1 C	1 B + 2 C	3 C	3 courses from Group AER8-II	2	1	24.0
2 free	2 free	1 B + 1 free	2 B	2 courses from Group AER6-II		1,2	12.0
				2 courses from Group OTHER		2	4.0+
				Thesis and final exam		1,2	20.0

Study plans - typologies

Descriptions of the study plans typologies will be available in the next weeks at:

<https://ccs-aerospaziale.polimi.it/piano-degli-studi/>

Educational profiles

An educational profile is an **educational pathway suggested to the students** which is structured in an indication of courses considered functional for the training of a **professional and cultural figure** with a certain characterisation and/or specialisation.

Outcome:

- figure specialized in [ep] -

Aircraft Aerodynamics

Fluid Dynamics

Aerospace Control Systems

Aerospace Propulsion

Aircraft Design – Performances and Design

Aircraft Design – Systems and Aerostructures

Aerospace Technologies

[...]

Work in progress

Educational profile – EXAMPLE

Example

Name: Aircraft Aerodynamics

Contact person: Alberto Guardone

Study plan typology (type): A (A1)

Description:

The profile aims to train **professional figures with a strong and robust specialization in the most important aspects related to the aerodynamics of fixed and rotary wing aircraft**. The educational pathway is developed to provide the student with an up-to-date knowledge and in-depth competence in the use of **modern techniques to understand, analyse, predict and measure the aerodynamic characteristics of an aircraft and/or its parts**. The skills acquired in the understanding of the physics of fluid motion allow the graduate to work both in the aeronautical field and in other fields of engineering where knowledge of aerodynamic aspects is required.

Type	Courses	Year	Sem	CFU
B	mandatory core courses	1	1	40.0
B	COMPRESSIBLE FLUID DYNAMICS		2	8.0
C	NUMERICAL MODELING OF DIFFERENTIAL PROBLEMS		2	6.0
C	free		2	6.0
B	COMPUTATIONAL FLUID DYNAMICS FLUIDODINAMICA SPRIMENTALE TURBULENCE: PHYSICS AND MODELING	2	1	24.0
	ROTOR AERODYNAMICS		1	6.0
	one of: PROGETTO AERODINAMICO AEROACOUSTICS FUNDAMENTALS OF HYPERSONIC FLOWS		2	6.0
-	INTRODUCTION TO RESEARCH another course from the Group OTHER		2	4.0+
-	THESIS AND FINAL EXAM		1,2	20.0

Educational profiles

Descriptions of the suggested educational profiles will be available in the next weeks at:

<https://ccs-aerospaziale.polimi.it/piano-degli-studi/>

Master's Thesis and final exam

What is

The Master's Thesis is an in-depth theoretical/numerical/experimental research or design assignment in a specific topic/field of expertise chosen by the student.

The topic of the Thesis should be (broadly) related to the aerospace field (preferably to the educational profile – if any).

Study goals

The students should be able to:

- demonstrate they are capable of independently apply relevant theory/knowledge to research and/or design
- interpret obtained results in a critical manner
- produce results with scientific/technological relevance
- critically reflect on the work performed at the level of their peers in their particular field
- present the work performed in a well-structured and well-written report
- present the work performed in a structured way through an oral presentation to their peers and wider audience
- plan the project efficiently considering resources and methodology

Master's Thesis and final exam

Start and duration

The nominal duration of the Master's Thesis is 500 hours (20 credits), approximately 4 months *full time*.

The thesis project can start at any time during the second year of the Study Programme.

[PLANNED] An application for managing the official start of the thesis is expected to be available soon (formal notification of the supervisor/subject, formal acceptance of rights and duties, NDAs (if any)).

Authors

The thesis project can be developed individually or with another Polimi MSc student (maximum 2 authors).

Organization

In order to start the Thesis you must have a thesis topic and a supervisor (see later "Supervisor").

Students are free to select a thesis topic from those proposed by faculty members within Polimi (contact them to get information on available topics).

Students are welcome to propose their own thesis topic or acquire a topic outside the university.

The project can be carried out in-house but also in collaboration with industries or external (research) organizations.

Master's Thesis and final exam

Supervisor ("Relatore")

The Thesis must have a supervisor, who is a professor at Polimi or an adjunct professor at Polimi in the current or previous academic year.

In the case of topics acquired outside Polimi (e.g., private company or external organization), find a suitable supervisor, discuss the project with him/her and get your proposal approved.

Faculty members may refuse students (lack of expertise, limited places, ...). In case of problems, contact the coordinator.

Co-supervisor(s) ("Corelatore/i")

The Thesis can have one or more co-supervisors – the project can be supervised with the collaboration of one or more PHD students, post-docs, external professors, external professionals, ...

Opponent ("Controrelatore")

When registering for the final exam, the student may request that the Thesis is evaluated by an Opponent (external reviewer with a strong expertise in the topic of the project).

The request must be approved by the Supervisor. Approval is based on the students' personal contribution and the academic level reached by the project in terms of original scientific research and/or technological innovation.

Master's Thesis and final exam

Final Exam

When you have finished the thesis project and you have cleared all the courses, you can request to take the final exam (four sessions per year – April, July, October, December).

The request must be made (about) one month before the graduation date and must be formally approved by your supervisor.

Once registered for the final exam, you have to submit the thesis report.

The thesis work is orally presented and discussed (about 20 minutes) during the final exam (graduation date).

Evaluation of the Thesis

After the presentation and discussion of the Thesis, the Committee shall assign a score to the Final Examination.

For the Final Examination of the Master Degree, the score assigned by the Committee shall have a minimum value of -1 (minus one) point and a maximum value differentiated as specified below:

- a maximum value of 4 (four) points for theses without Opponent;
- a maximum value of 7 (seven) points for theses with Opponent;
- a maximum value of 8 (eight) points for theses with Opponent if there is a “judgement of excellence” in the assessment of the supervisor and the Opponent and if all the members of the Committee agree.

Master's Thesis and final exam

Regulations

Polimi

available at: <https://www.normativa.polimi.it>

School of Industrial and Information Engineering

available soon at: <https://www.ingindinf.polimi.it/it/esami-di-laurea>

Degree Studies in Aerospace Engineering:

available in the next weeks at: <https://ccs-aerospaziale.polimi.it/tesi-di-laurea-magistrale/>

Additional activities

Additional courses

You can always add additional courses outside the basic course plan
You may choose classes also from PhD Schools
They cannot be exploited to reach the required 120 credits

Internship in a company

You are advised to add an internship (stage) to your course plan
It cannot be exploited to reach the required 120 credits
www.careerservice.polimi.it facilitates contacts with companies and seeks job opportunities

Participate to student competitions

- AHS Student Competition
- AIAA for Aeronautical students
- AIAA for Space students
- Airbus Fly your Ideas



Team Aeroswitch (Politecnico di Milano), 1st Place Graduate Team
Aircraft Design, 2020

Additional activities

Passion in Action

"Passion in Action" is a catalogue of open participation teaching activities that the Politecnico offers to students to support the **development of transversal, soft and social skills and to encourage/facilitate students in enriching their personal, cultural and professional experience.**

This opportunity is open to everyone. Students may choose from a range of subjects depending on their own interests and personal aptitudes. Students taking part in "Passion in Action" can register for any of the activities in the catalogue, regardless of whether they are related to the programme in which they are enrolled (subject to any prerequisites for access to individual initiatives).

Acquired skills will be accredited on the Diploma Supplement.

PASSION IN ACTION

L'ESPLORAZIONE SPAZIALE: DALLA
TECNOLOGIA ALL'ECONOMIA
(Conferenze, cicli di seminari, convegni)

MATEMATICA E MUSICA
(ONLINE)

CORSO DI STORYTELLING
(Didattica frontale)

Additional activities

STUDENTS' ASSOCIATIONS AT POLITECNICO DI MILANO

<https://www.polimi.it/en/current-students/representatives-and-associations/>



Skyward experimental rocketry

Active student association operating inside Politecnico di Milano, born in 2012 with the ambitious goal of designing and realizing small and medium sized experimental probe-rockets.



Polispace

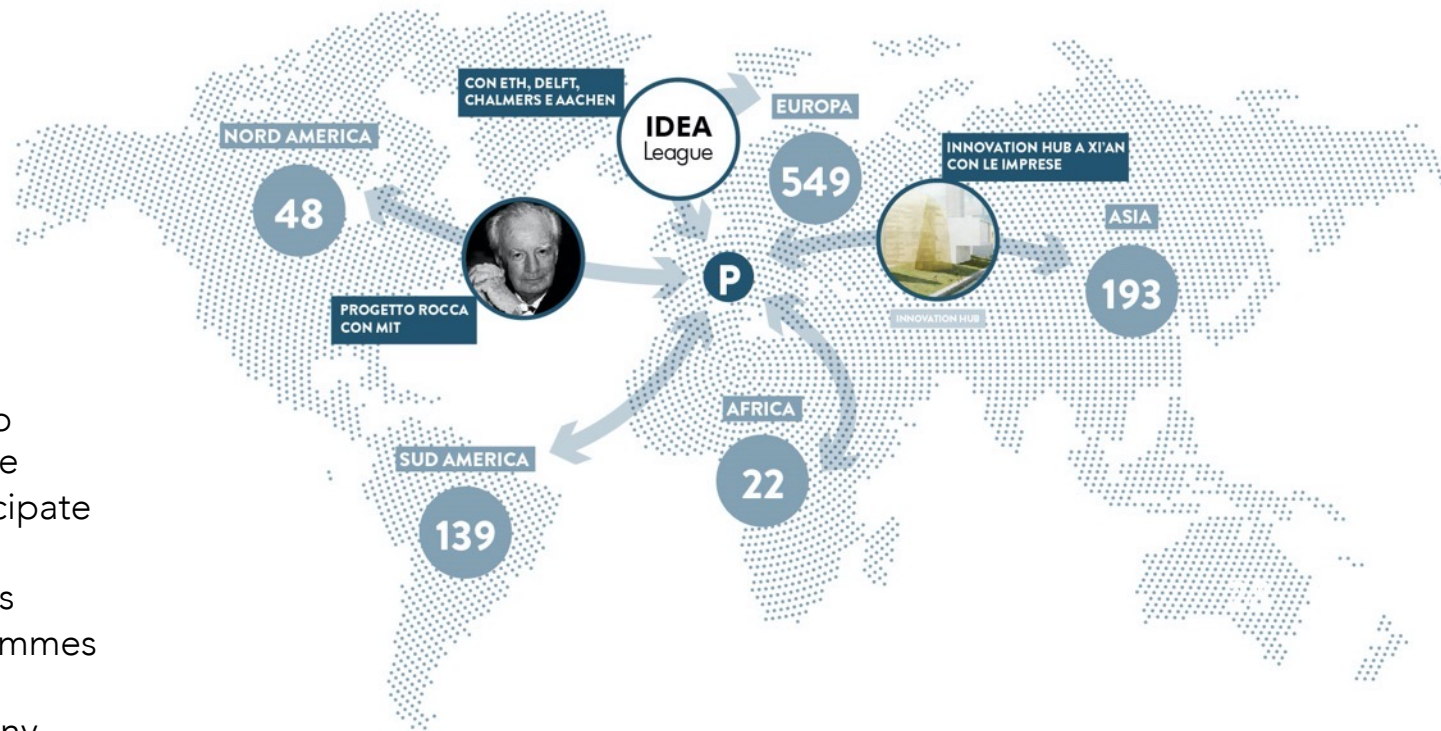
Non-profit student organization founded in September 2020, with the aim of offering students hands-on experiences on real space engineering projects, helping them building their network in the aerospace sector, spreading the aerospace culture and opportunities .



International mobility

GAIN EXPERIENCE ABROAD

Politecnico di Milano offers its students the opportunity to participate in high quality international projects based on EU programmes and on special agreements with many partner universities.



- Erasmus
- Mobility in Extra-European Countries
- Double degrees
- Sino-Italian Campus
- Athens
- Alliance4Teach
- IDEA League
- Medes
- Unitech
- Pegasus
- Global E3

Department of Aerospace Science and Technology



The educational offer of the Master Degrees in Aeronautical Engineering and Space Engineering is highly connected with the **research activities carried out by the Department of Aerospace Science and Technology (DAER)**



DAER numbers:

- 50 faculty members (professors and researchers)
- 30 technical and administrative staff
- 100 PhD students, post-docs, adjunct researchers

Department of Aerospace Science and Technology



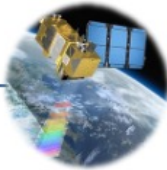
Research areas



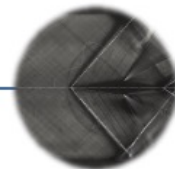
Aircraft and rotorcraft design,
aerodynamics, dynamics and control



Aerospace structures,
materials and technologies



Space science and engineering



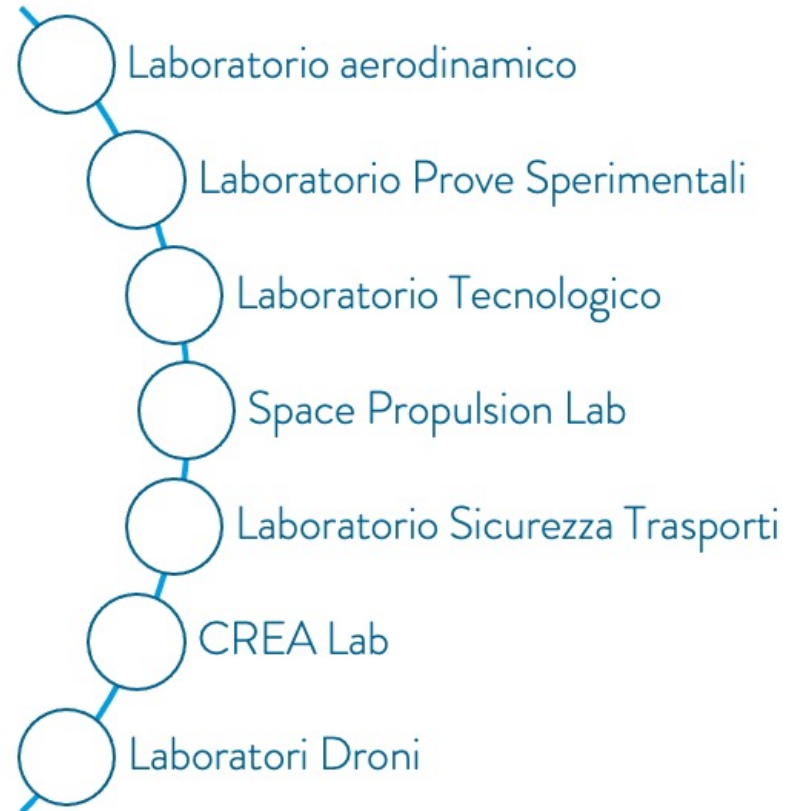
Fluid dynamics, computational
engineering, energy conversion

Department of Aerospace Science and Technology

Research infrastructures



Galleria del Vento del Dipartimento di Scienze e Tecnologie Aerospaziali del Politecnico di Milano



Contact persons

President/coordinator of the Study Programme: prof. **Lorenzo Dozio**

Admissions: prof. **Riccardo Vescovini**
prof. **Mauro Massari** (international students)

Study plans (LM AER): prof. **Alessandro Croce**

Study plans (LM SPA): prof. **Pierluigi Di Lizia**

International mobility : prof. **Paolo Astori**

Final exam: prof. **Antonella Abbà**
prof. **Federico Piscaglia**

<https://ccs-aerospaziale.polimi.it>



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A banner for the Aerospace Engineering course. It features a dark blue background with a map of Europe and the Mediterranean region, overlaid with a starry night sky pattern. The text "INGEGNERIA AEROSPAZIALE" is prominently displayed in white, bold, uppercase letters. Below it, in smaller white text, are "Corso di Studi" and "Scuola di Ingegneria Industriale e dell'Informazione".

INGEGNERIA AEROSPAZIALE

Corso di Studi
Scuola di Ingegneria Industriale e dell'Informazione

Questions?

