

Advanced Master's in Sustainable Aviation

Interdisciplinary program for aeronautical engineer/designer

100 %
ONLINE
Learn Anytime, Anywhere !

Target audience

Designed by ENAC and ISAE-SUPAERO for executives and leaders in Air Transport Sustainability, including Aircraft Design, Airlines, Airports and Air Traffic Management.

Objectives

1. Assess the various environmental impacts (climate, resources, biodiversity) of products and services in the aviation sector in order to identify eco-design levers through life cycle analysis.
2. Design technical and organizational solutions to improve the sustainability of a product or service while ensuring air transport safety and reliability requirements.
3. Analyze complex situations and devise forward-looking scenarios based on a systemic approach to contribute to sustainable aviation.
4. Support the implementation of innovative solutions and influence organizations to ensure their viability, taking into account aeronautical certification requirements and environmental regulations.

Prerequisites

Professional experience (aviation or environment) with a Master's Degree (2 years) or an equivalent in science or a Master's Degree (1 year) with at least 3 years of professional experience or International degree equivalent to the aforementioned degrees.

Formal Education : Master's degree in science (2 years) or an equivalent degree.

Under derogation : Under derogation: Master's degree (1 year) with less than 3 years of professional experience or Bachelor's degree / Licence with min 3 years of professional experience, also accessible with 5 years experience (VAPP)



Online training

Learning together, through collaborative and intercultural workshops, improving personal skills thanks to adapted use cases such as new energy implementation (SAF, H2, ..), eco-design of a drone service, retrofit of technical innovations on a regional aircraft, design of innovative air traffic management and airport operations.

Learners are required to conduct a 4-month in-company assignment within a company or a laboratory, jointly supervised by the host institutions ENAC and ISAE-SUPAERO.

They are also required to complete a professional thesis, which includes a written memoir and an oral defence, both contributing to the final evaluation.

contact

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Training themes

Aviation and its interactions with the environment (climate, resources such as energy, metals, etc.), complex and multi-disciplinary systems, eco-design of products and services, low-carbon energy carriers (including sustainable aviation fuels and hydrogen), certification of innovations and digital technologies.

Main assets and motivation reasons

- Starts from October 2026
- Supported by Industrial Leaders
- 60% of courses are led by Professionals
- Take a high-level scientific training course to accelerate your career and develop technical and business model skills
- Gain recognition thanks to a high-level diploma delivered by internationally recognized high schools/universities
- In line with labor market needs: societal and economic challenges to decarbonize the aviation sector to achieve the objectives defined at global and regional levels.
- Innovative teaching methods, multicultural groups, highly qualified lecturers and supervisors from the academic and professional sectors, international alumni network, tutoring
- Fully online program with large asynchronous sequences: flexibility to organize your learning and to balance professional career and personal development
- From 1 day to 1 year training programs (MOOCs, courses, full program)

Careers

Professional Domains

Aerospace Engineering • Industries • Production, Manufacturing • Sustainability • Airport and Airline Operations • Infrastructure • Aircraft Maintenance and Certification • Organization • Business Management • Air Traffic Management • Aviation Authorities

Main Employers

Airlines, airports and airport management companies, aircraft manufacturers, ATM/CNS systems manufacturers, air navigation services providers (ANSPs), maintenance, repair and overhaul (MRO) companies, aviation consulting firms, regulatory bodies and government agencies.

Positions

- Aircraft Systems Design Engineer
- Aircraft Maintenance Engineer
- Structural Research and Development Engineer
- System engineering architect or manager
- Industrial Architect
- Aviation Sustainability Manager
- Aeronautical Transformation Architect
- Chief Sustainability Officer
- Sustainability Consultant
- Production Unit Manager
- Industrialization Engineer
- Integration Engineer
- Project Engineer, Business Engineer, Project manager
- Safety Engineer
- Quality Engineer, Process Engineer
- Aviation Operations Expert
- Airline Operations Manager
- Airport Operations Manager
- Air Traffic Control Manager
- Aviation Safety Manager
- Consultant in Aeronautics
- Renewable Energy Engineer, Aviation Fuel Manager

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