



Course Plan

Second Level Master Degree's in

Aviation Industry Management and Operations

1	Academic year	2023-2024
2	Director	Guido De Matteis
3	Teaching-scientific board	Alessandro Corsini Giuliano Coppotelli Tiziana D'Alfonso Guido De Matteis Giulio Di Gravio Annalisa Fregolent Paolo Gaudenzi Riccardo Malpica Galassi Franco Mastroddi Fabio Nonino Riccardo Patriarca Giampaolo Romano
4	Resolution of activation in department	21/02/2023
5	Class start date	19/02/2024
6	Teaching calendar	To be defined
7	Partners	<ul style="list-style-type: none">- Italian Civil Aviation Authority, ENAC- Aeroporti di Roma S.p.A.- Airbus Italy- Atitech S.p.A.- Avio S.p.A.- Creasys S.p.A.- The European Organisation for the Safety of Air Navigation, Eurocontrol- Italian Air Navigation Service Provider, ENAV S.p.A.- ITA Airways- Leonardo Helicopters- Lufthansa Systems
8	Admission	<p>Participants are required to hold:</p> <ul style="list-style-type: none">- Master's Degree or equivalent in aeronautical engineering (LM-20)- Master's Degree or equivalent in engineering (LM-21, -22, -23, -25, -27, -28, -29, -30, -31, -32, -33, -34, -35). Please see NOTE 1 below.- University degree belonging to any class of master's Degree or equivalent. Please see NOTE 2 below.



		<p>(NOTE 1) At least two years' continuous employment in aeronautics, aviation, air transport or a closely related field is recommended.</p> <p>(NOTE 2) At least three years' continuous employment in aeronautics, aviation, air transport or a closely related field is recommended.</p> <p>Holders of a Laurea degree obtained in Italy under the system prior to the university reform of Ministerial Decree 509/99 equated to one of the above classes, as per the ministerial table (https://www.cun.it/uploads/3852/par_2009_04_23.pdf), may also access the Master's program, given the specific requirements documented above.</p>
9	Admission test	Yes
10	Venue of teaching activities	<ul style="list-style-type: none"> - Via Eudossiana, 18 – 00184 Rome (Italy) - Online (for specific activities only) - It will be possible to deliver teaching or training activities at a different location for operational needs, subject to approval by the Educational-scientific board.
11	Internships	<p>Avio ADR Atitech Creasys ENAV Eurocontrol ITA Airways Leonardo Helicopters and other partners, following agreements currently under development</p>
12	Mode of teaching delivery	Blended. The programme is delivered in person, but selected teaching activities will be delivered online.
13	External funding, exemptions, or fee reductions	<p>Yes</p> <p>Exemptions and/or reductions of the registration fee will be provided.</p>
14	Contacts Teaching secretariat	<p>Address Dipartimento di Ingegneria Meccanica e Aerospaziale, Via Eudossiana 18, 00184 Rome (Italy) Phone 0644585320 e-mail master.avimo@uniroma1.it</p>

Plan of training activities

Name	Learning objectives	Lecturers	Scientific area (SSD)	ECTS	Type	Assessment
Module I: Perspectives on Aviation Law (PAL)	To provide a systematic understanding of aviation national and international laws and regulations, allowing participants to define their impact on management and operations.	Prof. Mastroddi (responsible.) Other faculty members involved: prof. Gaudenzi	ING-IND/04 (2 CFU) ING-IND/06 (1 CFU)	3	Lectures, tutorials, seminars	Yes. Multiple choice test at the completion of the module.
Module II: Supply Chain Management (SCM)	To provide participants the foundational principles and business models, and business strategies for the delivery of aviation goods and services.	Prof. Di Gravio	ING-IND/17	3	Lectures, tutorials, seminars	Yes. Multiple choice test at the completion of the module, and case study analysis.
Module III: Project Management and Financial Analysis (PMF)	To demonstrate the role of Project and Portfolio Management for translating strategies into results and to equip participants with the methodologies for establishing a project, building a business case, managing portfolio risks, and analyse market requests and investments.	Prof. D'Alfonso (responsible) Other faculty members involved: prof. Nonino	ING-IND/35	8	Lectures, tutorials, seminars	Yes. Summative assessments will take place at the completion of the module based on a written report on an assignment, carried out either individually or as small group projects.

Module IV: Analytics and Business Intelligence (ABI)	To provide principles for designing data warehouses, and for developing and deploying advanced Business Intelligence systems to facilitate data mining and knowledge discovery, including AI solutions.	Prof. Fregolent (responsible) Other faculty members involved: prof. Corsini	ING-IND/03 (2 CFU) ING-IND/08 (2 CFU) ING-IND/13 (2 CFU)	6	Lectures, tutorials, seminars	Yes. Summative assessments will take place at the completion of the module based on a written report on an assignment, carried out either individually or as small group projects.
Module V: Certification and Airworthiness (CAW)	To provide knowledge and tools for compliance management as a means for managing certification and airworthiness processes and to be capable of implementing regulations in different operational settings.	Prof. Coppotelli (responsible) Other faculty members involved: prof. Malpica Galassi	ING-IND/04 (3 CFU) ING-IND/07 (3 CFU)	6	Lectures, tutorials, seminars	Yes. Summative assessments will take place at the completion of the module based on a written report on an assignment, carried out either individually or as small group projects.
Module VI: Risk and Safety Management (RSM)	To explore the structure of aviation safety management systems, equipping participants with the various methods for socio-technical	Prof. Patriarca	ING-IND/17	6	Lectures, tutorials, seminars	Yes. Summative assessments will take place

	safety and resilience assessment, including just culture programmes and human resource management.					at the completion of the module based on a written report on an assignment, carried out either individually or as small group projects.
Module VII: Aviation Operations Management (AOM)	To provide an understanding of the relationships and coordination among aviation stakeholders and to apply data-driven digital solutions for optimizing flight, ground, air traffic (including collaboration between Air Traffic Management, ATM, and Uncrewed Traffic Management, UTM) and maintenance operations to ensure safety, efficiency, and sustainability.	Prof. De Matteis	ING-IND/03 ING-IND/17	6	Lectures, tutorials, seminars	Yes. Summative assessments will take place at the completion of the module based on a written report on an assignment, carried out either individually or as small group projects.
Internship	To delve into thematic aspects from an operational perspective, allowing the participants to conduct an innovation project in one of the partner companies. Each participant will apply his/her expertise to a complex challenge to generate a tangible outcome, and develop the skills acquired through the basic and advanced modules in dynamic work environments.		-	18	Participant's performance and growth during the innovation project will be assessed by the company supervisor over four areas of knowledge and skills: application/integration and building of knowledge, problem solving/decision making, initiative and self-management, and interpersonal and teamwork.	

Other activities	To practice the articulation of concepts, ideas, and questions, challenging them against diverse industrial points of view.	SSD not required	1	Keynote lectures by senior figures and high level personalities in the aviation industry.
Final test	The final examination consists of the presentation and discussion of a technical report prepared by the candidate on the activities carried out during the innovation project.	SSD not required	3	Preparation of a final report on the internship project and delivery of its presentation. The final mark is obtained by the grades in the modules, and the assessment of internship activities by the company supervisor, and of the final report and presentation.
TOTAL ECTS			60	