

**Scheme of the didactic structure of the Master (sequence and contents of training modules, reference to the different scientific-disciplinary sectors, number of hours dedicated to each module, university credits):**

N.	Training modules	Specific training objectives and contents	Scientific-disciplinary sector	Hours	University credits
1	<b>Air Law</b>	<ul style="list-style-type: none"> <li>- Sources of air law and analogy</li> <li>- Freedoms of the Air and traffic rights: legal aspects</li> <li>- US Airline Deregulation and EU Air Transport Liberalisation Process: legal aspects</li> <li>- Civil aviation authorities and organisations (ICAO, Eurocontrol, EASA, ENAC, ENAV, ANSV, IATA etc.)</li> <li>- Air carriers</li> <li>- Licensing of air carriers: regulatory aspects</li> <li>- Leasing (contracts, lessor and lessee, liability, acceptance and clauses).</li> <li>- Liability for Aircraft Accident, safety position and Just culture principles</li> <li>- Airport management: legal aspects</li> </ul>	IUS/06	48	8
2	<b>Sustainable Development</b>	<ul style="list-style-type: none"> <li>- Notion and definitions of sustainability</li> <li>- The regulatory evolution of the principle of sustainable development and a pioneering role of transport</li> <li>- The pillars of sustainability: Economic Sustainability, Environmental Sustainability, Social Sustainability</li> <li>- Sustainability goals in the UN Agenda 2030</li> </ul>	IUS/06	24	4
3	<b>Aviation history</b>	<ul style="list-style-type: none"> <li>- Aviation history</li> <li>- The first powered flight</li> <li>- The emergence of airlines companies</li> <li>- Types of flight</li> <li>- The emergence of low cost companies</li> <li>- Towards the end of the low cost era?</li> </ul>	IUS/06	6	1
4	<b>Aeronautical engineering (fundamentals of flight) and Aircraft Maintenance</b>	<ul style="list-style-type: none"> <li>- Aircraft structure (configurations)</li> <li>- Aerodynamics</li> <li>- Engines and propulsion systems</li> <li>- Materials Science and on-board systems</li> <li>- Meteorology</li> <li>- EASA Part-145</li> </ul>	ING-IND/15  (and other similar sectors)	9	1,5

		<ul style="list-style-type: none"> <li>- CAMO</li> <li>- Aircraft Inspections (A, B, C, D)</li> <li>- The maintenance reserves</li> </ul>	GEO/12		
5	<b>Transport Economics</b>	<ul style="list-style-type: none"> <li>- Fundamentals of Economics (perfect competition, oligopoly, monopoly)</li> <li>- Cost factors of an airline (CASK, RASK, pax/km cost, load factor, break even, etc.)</li> <li>- Imposed costs (ATC, Airport Taxes, IATA, etc.)</li> <li>- Air freedoms and traffic rights: economic aspects</li> <li>- Evolution of air transport</li> <li>- US Airline Deregulation and EU Air Transport Liberalisation Process: economic aspects</li> <li>- Ecological transition and increased cost of flights</li> <li>- Sustainable prices</li> </ul>	SECS-P/06  (and other similar sectors)	9	1.5
6	<b>Air Cargo sector &amp; business jet</b>	<ul style="list-style-type: none"> <li>- Air Cargo sector: analysis of air routes</li> <li>- The P2F reconfiguration</li> <li>- The load factor</li> <li>- Logistics</li> <li>- The main freight airways</li> <li>- The role of freight forwarders</li> <li>- Customs</li> <li>- The business jet: aircraft and fleet models</li> <li>- Global market development: China case study</li> <li>- The sustainable business model</li> <li>- Sustainable development of air cargo</li> <li>- The NetJets Case: the private jet airline of Warren Buffett and flight safety</li> <li>- Private aviation after the pandemic era: new challenges</li> <li>- Sales of business jets</li> <li>- Sustainable growth of private terminals</li> </ul>	SECS-P/06  (and other similar sectors)	12	2
7	<b>Licences, certifications, inspections</b>	<ul style="list-style-type: none"> <li>- Aeronautical licences: requirements to obtain and maintain them</li> <li>- AOC (Air Operator Certificate): concept,</li> </ul>	IUS/06	15	2,5

		<p>requirements, certification procedures and the technical time.</p> <ul style="list-style-type: none"> <li>- Ramp Inspection: SAFA/SANA procedures</li> </ul>			
8	<b>Sustainable development of transport</b>	<ul style="list-style-type: none"> <li>- Application of sustainability principles to the transport sector</li> <li>- European transport policy</li> <li>- Sustainable mobility</li> <li>- Logistics and intermodality for sustainable development of transport</li> </ul>	IUS/06	9	1,5
9	<b>Sustainable development of air transport</b>	<ul style="list-style-type: none"> <li>- Aviation Sustainability</li> <li>- Air pollution from aircraft</li> <li>- Noise pollution from aircraft</li> <li>- EU legislation on sustainable development of aviation</li> <li>- International legislation on sustainable development of aviation, with special attention to ICAO Rules (Annexes) and CORSIA (Carbon Offset and Reduction Scheme for International Aviation) Program, etc.</li> </ul>	IUS/06	9	1,5
10	<b>Economics and business management.</b> <b>Business accounts</b>	<ul style="list-style-type: none"> <li>- <i>Aircraft Performance</i></li> <li>- The purchase of aircraft fuel (policy)</li> <li>- Supply and tenders</li> <li>- How to read the budget of an airline</li> <li>- Management control of airlines</li> <li>- Environmental management of airlines/ companies operating in the aviation sector</li> </ul>	SECS-P/06 SECS-P/07	15	2,5
11	<b>Company's sustainable development</b>	<ul style="list-style-type: none"> <li>- Corporate sustainability approaches: regulatory, ethical and strategic approaches</li> <li>- Sustainability and corporate social responsibility</li> <li>- Business ethics</li> <li>- Social and environmental budget</li> <li>- Risk management e operational processes</li> <li>- Management Sustainability Strategy</li> <li>- Circular Economy</li> </ul>	SEC-P/06  (and other similar sectors)	15	2,5

12	<b>Air transport strategy, policy and finance</b>	<ul style="list-style-type: none"> <li>- The Value Chain of Aviation</li> <li>- Airline Management</li> <li>- Competitive scenario</li> <li>- Business Model and Business Plan</li> <li>- Revenue Management</li> <li>- Productivity and costs</li> <li>- Fuel Hedging</li> <li>- The Distribution</li> <li>- The network</li> </ul>	SECS-P/06  (and other similar sectors)	12	2
13	<b>Sustainable development of airline companies</b>	<ul style="list-style-type: none"> <li>- Characteristics of the air carrier</li> <li>- Fuel policies: alternative fuels</li> <li>- Sustainable Aviation Fuel (SAF)</li> <li>- Emissions trading (ETS)</li> <li>- Climate change and the role of aviation</li> <li>- Airline Strategic Alliances</li> <li>- Air transport pricing strategy</li> <li>- Quality service and customer satisfaction</li> <li>- “Green” projects</li> <li>- Eco-Management and Audit Scheme (EMAS): Certification</li> <li>- Business management system</li> <li>- Lobbying against EU environmental policies</li> <li>- Reduced fuel consumption and flight safety</li> <li>- Environmental risk management</li> <li>- Aviation sustainability in a post-pandemic world</li> <li>- National Action Plans as a voluntary instrument for reducing CO2 emissions</li> <li>- ICAO’s commitment: Resolution A39-2 <i>“Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change”</i></li> </ul>	SECS-P/06  (and other similar sectors)	15	2,5

		<ul style="list-style-type: none"> <li>- IATA's role in a sustainable recovery</li> <li>- Scrapping/dismantling of aircraft: pollution and circular economy</li> <li>- Legislation and consumption</li> </ul>			
14	<b>Airport system and sustainability</b>	<ul style="list-style-type: none"> <li>- Disposal of waste oils, aircraft washing, noise and air pollution</li> <li>- Use of APU (Auxiliary Power Units)</li> <li>- Sustainable development of airports</li> </ul>	SECS-P/06  (and other similar sectors)	3	0,5
15	<b>Communication Airport system and sustainability</b>	<ul style="list-style-type: none"> <li>- Communication with the media</li> <li>- Internal business communication</li> <li>- Institutional communication</li> </ul>	SPS/08	3	0,5
16	<b>Flight Operations</b>	<ul style="list-style-type: none"> <li>- Selection of personnel</li> <li>- The flight planning system</li> <li>- Operational coordination and operational guard</li> <li>- Technical-operational office</li> <li>- The network: aircraft performance in the operating environment</li> <li>- The flight dispatcher</li> <li>- Sustainable management of flight operations</li> </ul>	M-PSI/06  (and other similar sectors)	18	3
17	<b>Ground operations</b>	<ul style="list-style-type: none"> <li>- Tasks of the nominated person for ground operations</li> <li>- Ticket office</li> <li>- Balance operations</li> <li>- Ramp operations</li> <li>- Baggage Handling</li> <li>- Special assistance</li> <li>- Handling of dangerous goods</li> <li>- Sustainable management of ground operations</li> </ul>	ICAR/05	15	2,5
18	<b>Training</b>	<ul style="list-style-type: none"> <li>- How to establish an ATO (Air Training Organization)</li> <li>- Regulatory requirements</li> <li>- Dangerous goods, security (Legislative Decree no. 81/2008)</li> <li>- Training programmes</li> <li>- Transition programmes</li> </ul>	IUS/06  (e altri settori affini)	15	2,5

		<ul style="list-style-type: none"> <li>- Licences of personnel</li> <li>- Training on sustainability</li> </ul>			
19	<b>Human factor &amp; safety</b>	<ul style="list-style-type: none"> <li>- Theoretical foundations of human factor</li> <li>- Human error</li> <li>- Human performance and limitations</li> <li>- Safety models for sustainable development of air transport</li> <li>- Team work (<i>CRM Crew Resource Management, NOTECHS Non-Technical Skills</i>) in professions at risk</li> <li>- Organisational factors and organisational sustainability</li> <li>- Sustainable automation and ergonomics</li> <li>- Psychological resilience and peer support (Wellbeing in aviation: Reg. (EU) 2018/1042)</li> </ul>	SECS-P/11  M-PSI/06 (and other similar sectorsi)	15	2,5
20	<b>Security</b>	<ul style="list-style-type: none"> <li>- Aviation security legislation</li> <li>- Infrastructures</li> <li>- Training of staff</li> <li>- On board Inspections</li> <li>- Cybersecurity and sustainability</li> </ul>	IUS/06  ICAR/06 (and other similar sectorsi)	9	1,5
<b>TOTAL</b>				<b>276</b>	46