



Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



I Level University Master in "Aviation: Sustainable Development Goals"



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module I AIR LAW

Specific training contents (48 hours)

1. Sources of air law and analogy
2. Freedoms of the Air and traffic rights: legal aspects
3. US Airline Deregulation and EU Air Transport Liberalisation Process: legal aspects
4. Civil aviation authorities and organisations
5. Air carriers
6. Licensing of air carriers: regulatory aspects
7. Leasing (contracts, lessor and lessee, liability, acceptance and clauses).
8. Liability for Aircraft Accident, safety position and just culture principles
- 9 Airport management: legal aspects



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module I AIR LAW Details

- International and EU Aviation legislation; hierarchy of the sources of law
- ICAO Annexes to the Chicago Convention; International Standards and Recommended Practices (SARPs)
- Soft law documents
- The 9 Freedoms of the Air; Air Traffic Rights
- US Airline Deregulation and EU Air Transport Liberalisation Process; the third package of air transport liberalization in Europe
- Role and competences of the civil aviation authorities and organisations (ICAO, Eurocontrol, EASA, ENAC, ENAV, ANSV, IATA)
- Air carriers: Regulation EC 1008/2008; Operation of air services: EU and international rules; Air transport agreements
- Licensing of air carriers: regulatory aspects
- Leasing: legal aspects; lease structure; different types of aircraft lease agreement; components of a Standard Aircraft Lease Agreement
- Liability for aircraft accident: investigation; safety position; gross negligence; wilful misconduct; acceptable/unacceptable behavior
- Just Culture Principles in the EU Legislation and Relationship with Safety Investigations and Occurrences Reporting
- Airport Management: security management; customer service; flight management; commercial operations; managing Human Resources; environmental aspects

In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module II

SUSTAINABLE DEVELOPMENT

Specific training contents (24 hours)

1. Notion and definitions of sustainability
2. The regulatory evolution of the principle of sustainable development and a pioneering role of transport
3. The pillars of sustainability: Economic Sustainability, Environmental Sustainability, Social Sustainability
4. Sustainability goals in the UN Agenda 2030



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module II

SUSTAINABLE DEVELOPMENT

Details:

- Origins and history
- Definition: the Brundtland Report
- Evolution of prevailing concepts and definitions of sustainable development at International Level: the road from Stockholm to Rio; the road from Rio +20 to Johannesburg; UN Agenda 2030
- Evolution of prevailing concepts and definitions of sustainable development at and EU level: the road from the Rome Treaty 1957 to the Single European Act; the road from the Maastricht Treaty to the Treaty establishing a Constitution for Europe (2004); the Lisbon Treaty 2007
- Different approaches to sustainability
- Sustainability dimensions
- 17 goals and 169 targets of Agenda 2030
- “Sustainable Development Report 2023” by SDSN (Sustainable Development Solutions Network)

In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module III

AVIATION HISTORY

Specific training contents (6 hours)

1. Aviation history
2. The first powered flight
3. The emergence of airlines companies
4. Types of flight
5. The emergence of low cost companies
6. Towards the end of the low cost era?



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module III: AVIATION HISTORY

Details:

- History of Aircraft and Aviation
- From the Dream of Flight (Icarus) to the Renaissance Revolution and Early Aeronautical Design (Leonardo da Vinci)
- Heavier-Than-Air Aircraft: the Montgolfier Brothers
- Invention of the Airplane: the Wright Brothers in the History of Aviation
- Aviation during the World War I
- The first transatlantic flight: Charles Lindbergh
- Aviation during the World War II and the technological revolution



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- How Aviation Evolved from Military Applications to Civilian
- History of the Airline Industry
- Development of Jet-Powered Aircraft
- Helicopters & V/STOL
- Supersonic Aircraft
- Regional aircraft and General Aviation
- Spaceplanes
- Drones
- Low-cost Aviation and its evolution
- Digital Age and Aviation of the Future: towards Sustainable Aviation



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module IV

AERONAUTICAL ENGINEERING (FUNDAMENTALS OF FLIGHT)

AND AIRCRAFT MAINTENANCE

Specific training contents (9 hours)

1. Aircraft structure (configurations)
2. Aerodynamics
3. Engines and propulsion systems
4. Materials Science and on-board systems
5. Meteorology
6. EASA Part -145
7. CAMO
8. Aircraft Inspections (A, B, C, D)
9. The maintenance reserves



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module IV: AERONAUTICAL ENGINEERING (FUNDAMENTALS OF FLIGHT) AND AIRCRAFT MAINTENANCE

Details:

- Aircraft structural components
- Load factor
- Elements and applications of aereodynamic forces
- Maneuvers
- Airworthiness of the aircraft
- Aircraft principal axes



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- Aircraft propulsion systems technology and design
- Basic propeller principles
- Current trends in aircraft design and construction
- Materials used in aircraft: sustainability aspects
- Aircraft software systems
- Aircraft hardware systems
- Flight control systems



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- Aviation Meteorology for Safe , Efficent and Cost-effective air navigation services
- Meteorology and Flyng plannig
- ICAO Annex 3 – Meteorological Service for International Air Navigation
- EASA part 145 - Quality System
- Certification of maintenance
- Personal requirements
- CAMO (Continuing Airworthiness Management Organisation)
- ICAO Annex 8 – Airworthiness of Aircraft
- Regulation (CE) 2042/2003 on Continuing Airworthiness of Aircraft
- Regulation (EU) 1321/2014 on Continuing Airworthiness of Aircraft
- Aircraft maintenance checks
- The different types of aviation maintenance checks (ABCD's System)
- Basics of aircraft maintenance reserve development and managment



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module V: TRANSPORT ECONOMICS

Specific training content (9 hours)

- 1. Fundamentals of Economics (perfect competition, oligopoly, monopoly)**
- 2. Cost factors of an airline (CASK, RASK, pax/km cost, load factor, break even, etc.)**
- 3. Imposed costs (ATC, Airport Taxes, IATA, etc.)**
- 4. Air freedoms and traffic rights: economic aspects**
- 5. Evolution of air transport, US Airline Deregulation and EU Air Transport**
- 6. Liberalisation Process: economic aspects**
- 7. Ecological transition and increased cost of flights**
- 8. Sustainable prices**



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module V: TRANSPORT ECONOMICS

Details:

- Demand, supply and market balance
- Efficiency and inefficiency of markets
- Flexibility and externality
- Role of the public sector in the economy
- Production and costs
- Different types of market structures
- Monopoly, oligopoly and perfect/imperfect competition
- American and European approaches to air transport: deregulation *versus* liberalization
- Sustainable pricing
- Fuel surcharge and sustainable aviation fuel



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- The Airline Deregulation Act 1978
- The International Air Transportation Competition Act 1979
- Air Transport Liberalization in the EU: Three Packages (1987, 1990 and 1992)
- Third Liberalization Package: *Regulations* (EEC) Nos 2407/92, 2408/92 2409/92
- Regulation (EC) No 1008/2008
- The Freedoms of the Air in the Chicago Convention of 1944: economic aspects
- International Air Services Transit Agreement:
- Technical and Commercial Aviation Freedoms
- Airline Cost Factors and Aviation Business: Available Seat Kilometres (ASK); Cost per Available Seat Kilometers (CASK); Revenue per Available Seat Kilometres (RASK); Revenue Passenger Miles (RPMs) and Revenue Passenger Kilometres (RPKs); Passenger Load Factor (PLF); Break-Even Analysis and Break-Even Point (BEP)
- Air Traffic Control (ATC) Charges
- Airport Taxes & Fees and other Aviation Charges;
- Airline taxes and fees and Impact on the sustainable development of air transport



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module VI: AIR CARGO SECTOR & BUSINESS JET

Specific training contents (12 hours)

1. Air Cargo sector: analysis of air routes
2. The P2F reconfiguration
3. The load factor
4. Logistics
5. The main freight airways
6. The role of the freight forwarder
7. Customs
8. The business jet: aircraft and fleet models
9. World market development: China case study
10. The sustainable business model
11. Sustainable development of air cargo
12. A NetJets Case: Warren Buffett and flight safety
13. Private aviation following the pandemic era: new challenges
14. Business jet sales
15. Sustainable growth of private terminals



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module VI: AIR CARGO SECTOR & BUSINESS JET

Details:

- Air Cargo Market Analysis: participants, processes, markets, developments
- The Future of Sustainable Air Cargo Industry
- Air Cargo Management: Air Freight and the Global Supply Chain
- Air Cargo Services Supply
- The main freight airways
- Passenger-To-Freighter (P2F) conversions
- Air Cargo Load Factors (CLFs)
- Air Cargo Logistics: security, environment, sustainability and air cargo alliances
- Custom issues
- Role & Responsibilities of Freight Forwarders
- General aviation, commercial aircraft and business jets



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- Models of management of aircraft fleet: different approaches
- China's Economy and its Influence on Global Markets
- Sustainable Business Model (SBM): definition and principles
- NetJets of Warren Buffett: an Aviation Business Jet Case Study
- Private Jets for Sale
- The Impact of the Pandemic on the Business Jet Sector
- The Future of Private Jet Market
- Sustainable Growth in Private Aviation
- The growth of private terminals and sustainability



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module VII

LICENCES, CERTIFICATIONS, INSPECTIONS

Specific training contents (15 hours)

1. **Aeronautical licences: requirements to obtain and maintain them**
2. **AOC (Air Operator Certificate): concept, requirements, certification procedures and the technical time**
3. **Ramp Inspection: SAFA/SANA procedures**



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module VII: LICENCES, CERTIFICATIONS, INSPECTIONS

Details:

- General structure of certification
- Annex 1 to the Convention on International Civil Aviation: Personnel Licensing
- Common Requirements for Most Types of Pilot Licenses
- Certification procedures : The Five Stage Certification Process
- Air Operator Certificate (AOC): definition and description
- The requirements for obtaining an AOC
- Article 64 and Article 65 of EASA Basic Regulation (Regulation EU 2018/1139)
- Operational demonstration and inspection phase



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- Ramp Inspection Programmes: description (SAFA/SACA)
- Commission Regulation (EU) No 965/2012
- Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Part-ARO (consolidated version, issue 3, Amendment 10, 16 September 2019)
- Ramp Inspection Manual (RIM), Issue 1, 20 March 2019
- SACA (Safety Assessment of Community Aircraft)
- SAFA (Safety Assessment of Foreign Aircraft)
- SANA (Safety Assessment of National Aircraft)
- Performing Ramp Inspections
- EASA's role in the EU Ramp Inspections Programme



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module VIII: SUSTAINABLE DEVELOPMENT OF TRANSPORT

Specific training contents (9 hours)

- 1. Application of sustainability principles to the transport sector**
- 2. European transport policy**
- 3. Sustainable mobility**
- 4. Logistics and intermodality for sustainable development of transport**



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module VIII: SUSTAINABLE DEVELOPMENT OF TRANSPORT

Details:

International Framework

- The role of transport in sustainable development: the 1992 United Nation's Earth Summit and Agenda 21
- The transport sector's targets in the 2002 World Summit on Sustainable Development and the Johannesburg Plan of Implementation (JPOI)
- The central role of transportation and mobility in the sustainable development in the 2012 UN Conference on Sustainable Development (Rio +20)
- The 2016 Global Sustainable Transport Conference and the "Mobilizing Sustainable Transport for Development" Report
- Sustainable transport in the 2030 Agenda for Sustainable Development

In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



European Framework

- Transport policy in the Rome Treaty 1957 (Article 3)
- Transport policy in the Single European Act 1986
- Transport policy in the Maastricht Treaty 1992 in the light of the sustainability principles
- European White Papers on Transport (1992, 2001, 2011)
- Trans-European Networks (TEN) Policy: evolution
- The current transport policy
- Transport Policy: concepts and objectives for a sustainable transport system
- European Transport Policy and Sustainable Mobility
- Intermodality and logistics as sustainable development tools
- From the EU ETS (Emissions Trading System) to the EU's Plan for a Green Transition
- The "Fit for 55" Package



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module IX: SUSTAINABLE DEVELOPMENT OF AIR TRANSPORT

Specific training contents (9 hours)

- 1. Aviation Sustainability**
- 2. Air pollution from aircraft**
- 3. Noise pollution from aircraft**
- 4. EU legislation on sustainable development of aviation**
- 5. International legislation on sustainable development of aviation, with special attention to ICAO legislation (Annexes) and CORSIA (Carbon Offset and Reduction Scheme for International Aviation) Program, etc.**



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module IX: SUSTAINABLE DEVELOPMENT OF AIR TRANSPORT

Details:

- The concept of sustainable development of air transport: evolution and international/EU legislation
- Sustainable development of air transport and ICAO Rules/Annexes
- ICAO Annex 16: Environmental Protection
- The Impact of Commercial Aircraft Activity on Air Quality near Commercial Airports
- Environmental effects of aviation on Air Quality
- Aviation, Air Pollution, and Climate Change
- Aircraft Noise Pollution: How are airports and airlines addressing the issue?
- Aircraft Noise Reduction Strategies and Analysis of the Effects
- CORSIA (Carbon Offset and Reduction Scheme for International Aviation) Program: ICAO Resolution A39-3

In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module X: ECONOMICS AND BUSINESS MANAGEMENT. BUSINESS ACCOUNT

Specific training contents (15 hours)

- 1. Aircraft Performance**
- 2. The purchase of aircraft fuel (policy)**
- 3. Supply and tenders**
- 4. How to read the budget of an airline**
- 5. Management control of airlines**
- 6. Environmental management of airlines/ companies operating in the aviation sector**



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module 10: ECONOMICS AND BUSINESS MANAGEMENT. BUSINESS ACCOUNT

Details:

- Aircraft performance analysis
- Economic values related to aircraft performance factors
- Economic impact of introducing green aircraft technologies
- Aircraft Fuel
- Regulation (EU) 2021/1296
- Sustainable Aviation Fuels (SAF): current state and challenges



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- Fuel policy and Fuel management: EASA New Rules
- Environmental policy of airline
- Supply market analysis
- The budget of an airline: the low-cost business model and the major airline business model
- How an airline's budget is organized: the budget items
- Management control processes (planning and budgeting, cost management and performance evaluation)
- Environmental Management System (EMS) for airports
- Environmental Management System (EMS) for airlines
- ICAO Report on Environmental Management System (EMS) in Aviation



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XI COMPANY'S SUSTAINABLE DEVELOPMENT

Specific training contents (15 hours)

1. Corporate sustainability approaches: regulatory, ethical and strategic approaches
2. Sustainability and corporate social responsibility
3. Business ethics
4. Social and environmental budget
5. Risk management e operational processes
6. Management Sustainability Strategy
7. Circular Economy



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XI: COMPANY'S SUSTAINABLE DEVELOPMENT Details:

- Sustainable development: a business definition
- Business strategies and policies for sustainable development
- Sustainable development objectives
- Development of a supportive corporate culture
- Development of measures and standards of performance
- European Commission strategy on CSR (Corporate Social Responsibility)
- Key documents for CSR/RBC (Corporate Social Responsibility/ Responsible Business Conduct) policy
- European Framework



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- A Renewed EU strategy 2011-14 for Corporate Social Responsibility (2011)
- Communication on the next steps for a sustainable European Future (2016)
- Reflection paper: towards a sustainable Europe by 2030 (2019)
- EU Action plan on human rights and democracy 2020-2024 (2020)
- Circular economy: definition, importance and benefits
- Development of the circular economy in the EU
- EU Directive 2018/851 and Directive 2008/98/CE on waste
- Strategic Management in a Circular Economy



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module 12: AIR TRANSPORT STRATEGY, POLICY AND FINANCE

Specific training contents (12 hours)

1. The Value Chain of Aviation
2. Airline Management
3. Competitive scenario
4. Business Model and Business Plan
5. Revenue Management
6. Productivity and costs
7. Fuel Hedging
8. The Distribution
9. The network



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module 12: AIR TRANSPORT STRATEGY, POLICY AND FINANCE

Details:

- Introduction to Airline Management
- Characteristics of Air Transport Industry
- Organizational Structure
- Airline management in a Competitive Environment
- Airline Marketing & Management
- Airline Operating Costs and Productivity
- Competitive Strategies in the Airline Industry
- Airline Industry Analysis



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- Airline Industry/Aviation Value Chain Analysis
- From the Aviation Value Chain to the Aviation System
- Air Transport Policy and Regulation
- Airline Business Plan
- Business Models of the Aviation Industry
- Air Transport and Airline Planning and Policy
- Airline Revenue Management: definition and evolution
- Fuel hedging or fuel risk management
- Management of Aviation Distribution Networks
- Financing for aviation infrastructure



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XIII

SUSTAINABLE DEVELOPMENT OF AIRLINE COMPANIES

Specific training contents (15 hours)

1. Characteristics of the air carrier
2. Fuel policies: alternative fuels
3. Sustainable Aviation Fuel (SAF)
4. Emissions trading (ETS)
5. Climate change and the role of aviation
6. Airline Strategic Alliances
7. Air transport pricing strategy
8. Quality service and customer satisfaction
9. "Green" projects
10. Eco-Management and Audit Scheme (EMAS) Certification
11. Business management system
12. Lobbying against EU environmental policies



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XIII

SUSTAINABLE DEVELOPMENT OF AIRLINE COMPANIES

Specific training contents (15 hours)

13. Reduced fuel consumption and flight safety
14. Environmental risk management
15. Aviation sustainability of post-pandemic in a post-pandemic world
16. National Action Plans as a voluntary instrument for reducing CO2 emissions
17. ICAO's commitment: Resolution A39-2 *"Consolidated statement of continuing ICAO policies and practices"*
18. National Action Plans as a voluntary instrument for reducing CO2 emissions
19. ICAO's commitment: Resolution A39-2 *"Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change"*
20. IATA's role in a sustainable recovery
21. Scrapping/dismantling of aircraft: pollution and circular economy
22. Legislation and consumption

In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module 13: SUSTAINABLE DEVELOPMENT OF AIRLINE COMPANIES

Details:

- Sustainable Development Goals and Aviation Industry
- Decarbonization Reducing Emissions from Aviation
- EU ETS (Emission Trading System) and the “Polluter Pays Principle”
- “Cap and Trade” Principle
- Sustainable Aviation Fuel (SAF) and Alternative Fuels (e-fuels)
- EU Rules for Promotion of Sustainable Aviation Fuels under ‘Fit for 55’
- Regulation (EU) 2023/2405 (ReFuelEU Aviation)
- Low Fuel Consumptions and its Impact on the Cost of Airline Operations
- Fuel Efficiency and Operational Factors Affecting the Rate of Fuel Consumption in Aircrafts
- Technologies and policies for improving Aircraft Fuel Efficiency
- The Growth in Greenhouse Gas Emissions from Commercial Aviation
- EU New Renewable Energy Rules



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- Analysis of Global Airline Alliances as a Strategy for International Network Development
- The Airline Business and Global Airline Alliances
- Dynamic Pricing Strategy for Airlines
- State of the Art of Pricing Policy in Air Transportation
- Impact of Airline Service Quality on Customer Satisfaction
- EU Projects on Sustainable Aviation
- Sustainable Consumption in Commercial Aviation Operations
- EMAS (Eco-Management and Audit Scheme) Certification and Green Business
- State Action Plans for CO2 Emissions Reduction in the Aviation Sector
- Offsetting CO2 emission with CORSIA (Carbon Offsetting and Reduction for International Aviation)
- Fundamentals of Aviation Business Management
- Lobbying and Green Policies
- Flight Safety and Environmental Risk Management



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- The Future of Aviation Post-Pandemic
- Sustainability Recovery of Air Transport as a Priority for Industry: the role of IATA
- Aviation Industry and European Climate Policy
- The Impact of Climate Change on Aviation
- ICAO Assembly Resolution A39-2 “*Consolidated statement of continuing ICAO policies and practices related to environmental protection. Climate change*”
- ICAO Assembly Resolution A39-3 “*Consolidated statement of continuing ICAO policies and practices related to environmental protection – Global Market-based measure (MBM) scheme*” and subsequent resolutions.
- The Implementation of the Circular Economy in Commercial Aviation
- Commercial Aircraft Disassembly, Dismantling & Recycling (Scrapping) Market

In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XIV

AIRPORT SYSTEM AND SUSTAINABILITY

Specific training contents (3 hours)

1. Disposal of waste oils, aircraft washing, noise and air pollution
2. Use of APU (Auxiliary Power Units)
3. Sustainable development of airports



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module 14: AIRPORT SYSTEM AND SUSTAINABILITY

Details:

- Aircraft Exterior Surface Cleaning: Best Practice
- An Environmentally Approach to Aircraft Washing
- Reducing Aircraft Noise Pollution (Engine Noise *versus* Airframe Noise)
- The Impact of Commercial Aircraft Activity on Air Quality
- Emissions from APU (Auxiliary Power Units) and Ground Power Units
- Sustainability in the Airport Ecosystems
- Airports' Sustainability Strategy



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

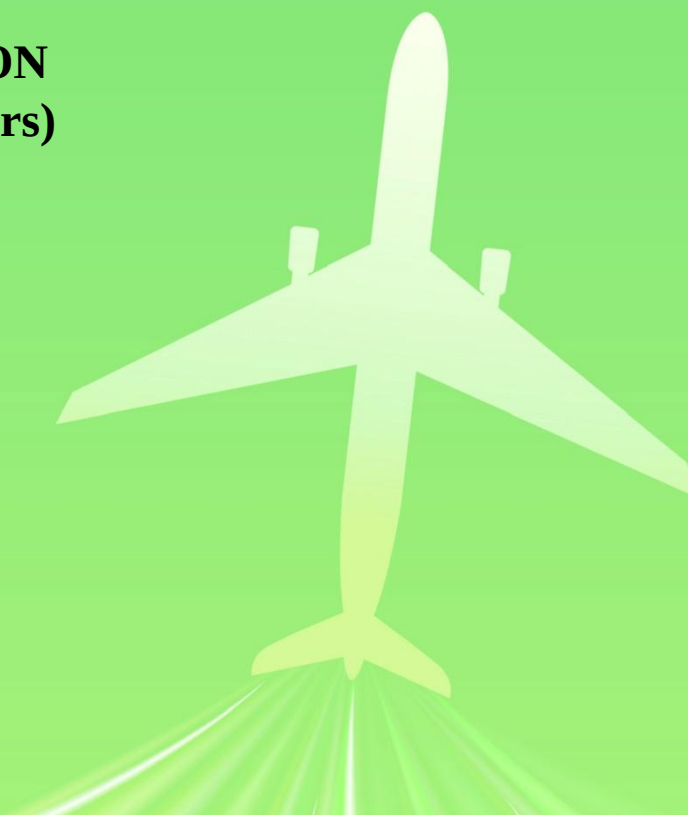
DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XV: COMMUNICATION

Specific training contents (3 hours)

1. Communication with the media
2. Internal business communication
3. Institutional communication



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XV: COMMUNICATION

Details:

- Media sociology
- Web languages
- Digital communication
- Digital information systems and trends
- Advertising languages
- Media text analysis
- Types of communication
- Public and political communication
- Sustainability and Corporate Communication
- ESG (Environmental Social Governance) Communication



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XVI: FLIGHT OPERATIONS

Specific training contents (18 hours)

1. Selection of personnel
2. The flight planning system
3. Operational coordination and operational guard
4. Technical-operational office
5. The network: aircraft performance in the operating environment
6. The flight dispatcher
7. Sustainable management of flight operations



In cooperation with



ICAO





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module 16: FLIGHT OPERATIONS

Details:

- Aviation Operations and Resources
- Aviation Recruiting Process
- Flight Plan: elements
- The Flight Planning System
- Coordination in ATC (Air Traffic Control)
- Operations Control Center
- Flight Dispatcher / Flight Operations Officer: role and responsibilities
- Technical Operations (Tech Ops)
- The Operating Environment and Aircraft Performance
- Performance Indicators
- Sustainable and Efficient Flight Operations
- Sustainable Management of Flight Operations



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XVII

GROUND OPERATIONS

Specific training contents (15 hours)

1. Tasks of the nominated person for ground operations
2. Ticket office
3. Balance operations
4. Ramp operations
5. Baggage Handling
6. Special assistance (PRM, minors..)
7. Handling of dangerous goods
8. Sustainable management of ground operations



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XVII: GROUND OPERATIONS

Details:

- Regulation (EU) No 965/2012 – AIR OPS
- IATA Standard Ground Handling Agreement (SGHA)
- Ground assistance services
- Ground Handling Service Provider (GHSP)
- Draft GH Regulation
- Ground Operations Manual



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- Manual on Collaborative Air Traffic Flow Management (ATFM)
- Ground support equipment
- APRON management
- Turn Round Time (TRT)
- IATA Dangerous Goods Regulations (DGR)



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XVIII: TRAINING

Specific training contents (15 hours)

1. How to establish an ATO (Air Training Organization)
2. Regulatory requirements
3. Dangerous goods, security (Legislative Decree no. 81/2008)
4. Training programmes
5. Transition programmes
6. Licences of personnel
7. Training on sustainability



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module 18: TRAINING

Details:

- Easy Access Rules
- Structure & Management of an ATO and FSTD Operator
- Training on Dangerous Goods & Security
- Part-ORO Reg. (EU) 965/2012
- Crew Resource Management (CRM) Training Compliance Checklist
- - Operator Proficiency Check (OPC)



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XIX: HUMAN FACTOR & SAFETY

Specific training contents (15 hours)

1. Theoretical foundations of human factor
2. Human error
3. Human performance and limitations
4. Safety models for sustainable development of air transport
5. Team work (CRM Crew Resource Management, NOTECHS Non-Technical Skills) in professions at risk
6. Organisational factors and organisational sustainability
7. Sustainable automation and ergonomics
8. Psychological resilience and peer support (Wellbeing in aviation: Reg. (EU) 2018/1042)



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module 19: HUMAN FACTOR & SAFETY

Details:

- Worldwide jet fleet
- Accident investigation reports
- Human Factors in Aviation
- SHEL (*Software, Hardware, Environment & Liveware*) Model
- Non punitive incident reporting systems (Air/Ground Safety Reports; Confidential Reports; Surveys)
- Problem Solving



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- Barriers to communication
- Leadership & Followership qualities
- Principles of Human Performance
- HPL in Safety & Security (Modello ICAO-Doc 9808)
- Threat & Error Management/TEM
- Types of communication
- Human-AI partnerships: symbiotic teams and crews
- Urban Air Mobility & Human Factors



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module XX: SECURITY

Specific training contents (9 hours)

1. Aviation security legislation
2. Infrastructures
3. Training of staff
4. On board Inspections
5. Cybersecurity and sustainability



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



Module 20: SECURITY

Details:

- Standards ICAO & ECAC
- Security measures in Airport
- Security Restricted Area & CPSRA (Critical Part of Security Restricted Area)
- Control Room
- Reg. (UE) 2015/1998: detailed measures for the implementation of the common basic standard on aviation security
- New Technology for Passenger Screening



In cooperation with



ICAO



TRAINAIR
PLUS





Università
degli Studi di
Messina

DIPARTIMENTO DI GIURISPRUDENZA
"SALVATORE PUGLIATTI"



- Security Culture
- Critical Accident/Incident Management Plan
- Social Engineering & cybersecurity



In cooperation with



ICAO



TRAINAIR
PLUS

