

MSC INTERNATIONAL AIR TRANSPORT SYSTEM ENGINEERING AND DESIGN

IN BRIEF

Type of diploma : Master of science degrees

Ministry field(s) : Science and Technology

Mention : Aéronautique et espace

Presentation

By integrating the MSc IATSED, you will receive a solid foundation of fundamental systems engineering knowledge with extensive experimentation in managing complex, multidisciplinary, advanced engineering projects thanks to the involvement of our industrial partners all along the master program: course definition, project monitoring, new technologies introduction, six-month thesis. You will gain valuable deeper insights to manage complex engineering systems and improve future processes in air transport. Based on interdisciplinary engineering approach, the MSc IATSED makes sure you will be familiarized with international engineering concepts by direct application of international INCOSE standards. IATSED professors maintains close ties with the INCOSE community.

Organization

Year 1

Semester 7

MORE INFO

Level : Year 5 higher education – Master

Type of education

* Full-time

Kind of education :
Curriculum

- *Basis 1 (Mandatory)*
 - MA4600 - Probability and stochastic processes
 - CP4001 - Professional learning
 - LV4601 - Culture and language French
 - LV406E - Culture and Language - English
 - RE4601 - Research : state of the art
- *Engineering Block1 (Mandatory)*
 - CS4600 - System engineering introduction
 - CS4602 - Technical management process
 - CS4604 - Technical process 1
 - CS4606 - Safety assurances
- *Software Block1 (Mandatory)*
 - IP4602 - Python Programming
 - IP4600 - SGBD
 - IW4601 - COO-UML
 - IW4602 - Open connected system
- *Air Transport Block1 (Mandatory)*
 - EA4603 - Air transport
 - EA4604 - Airport
 - AT4601 - Air Traffic Management
 - RG4606 - Civil Aviation International Context
 - AV4601 - Aircraft
- *Project Call for tender (Mandatory)*
 - TX4900 - Project "Ice breaking"
 - TX4910 - Project "Dual Transport"

Semester 8

- *Basis 2 (Mandatory)*
 - EE4601 - Electrical engineering
 - AV4602 - Mechanical and material engineering
 - LV4602 - Language
- *Engineering Block2 (Mandatory)*
 - CS4608 - Cross cutting System engineering 1
 - RS4601 - Technical process 2
 - IS4601 - Speciality engineering activities 2
- *Software Block2 (Mandatory)*
 - IP4608 - Object oriented programming
 - IP4610 - Data Science 1
 - IH4601 - Interactive Software Engineering
 - IP4620 - Secure programming
- *Air Transport Block2 (Mandatory)*
 - AT4604 - Civil Aviation International Context 2
 - AT4606 - System Wide Information Management
 - AT4610 - Aircraft 2
- *Project Sub-system development (Mandatory)*
 - TX4920 - Project "Dual Transport"

Year 2

Semester 9

- *Basis 3 (Mandatory)*
 - . LV5601 - Language
 - . CP4001 - Professional learning
- *Advanced Engineering (Mandatory)*
 - . CS5600 - INCOSE Certification
 - . RS5601 - Advanced system modelisation
 - . IS5601 - Advanced security
 - . CS5610 - Enterprise Architecture
 - . SF5601 - Integrated logistic support
 - . CS5620 - Preparation CAPM (optional)
 - . CS5006 - Formal methodes based V & V part 1
 - . CS5001 - Advanced safety
 - . IS5605 - Cryptography
 - . IS5603 - Integrating security
 - . IS5604 - Vulnerabilities Part 2
 - . IS5602 - Secure programming
- *Advanced Software (Mandatory)*
 - . IP5605 - C++ Programming
 - . IP5620 - Writing software requirements
 - . IW5601 - Open connected system 2
 - . CS5005 - Reactive programming
 - . CS5001 - Advanced safety
 - . IS5601 - Advanced security
 - . IS5605 - Cryptography
 - . IS5603 - Integrating security
 - . CS5006 - Formal methodes based V & V part 1
 - . CS5007 - Formal methods based V&V 2
 - . IP5005 - OOP oriented toward C++ certification
 - . IS5602 - Secure programming
 - . IP5610 - Data Science 2
 - . IS5604 - Vulnerabilities Part 2
 - . IW5602 - Web programming
- *Air Transport Block3 (Mandatory)*
 - . AT5601 - ATC Systems
 - . AT5605 - ATC Tools
 - . OP5610 - Airline
 - . AT5610 - The Way towards Trajectory Based Operation
- *Project on chosen option (Mandatory)*
 - . TX5910 - Capstone Project

Semester 10

- *Final project (Mandatory)*
 - . TX5900 - End of study project



Organizational unit

ENAC - Ecole nationale de l'aviation civile

Places

Toulouse

Contacts

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