

Course Syllabus

020AERGS4 Transport and Airport Engineering

1. **Course number and name:** 020AERGS4 Transport and Airport Engineering
2. **Credits and contact hours:** 2 credits 2 x 1.15 hours (17.5 hours)
3. **Instructor's or course coordinator's name:** Angele AOUAD RIZK
4. **Textbook and other supplemental material:**
 - a. International Civil Aviation Organization (ICAO), (2016) Annex 14, Volume I, Aerodromes, Aerodrome Design and Operation, International Standards and Recommended Practices,, 5th Edit.
 - b. International Civil Aviation Organization (ICAO), (2006), Aerodrome design Manual, Doc 9157-AN/901, 3rd Edit.
 - c. A.Kazda, R.E.Caves, Airport Design and Operation, 3rd Edit., Elsevier.
 - d. N.J.Ashford, H.P.M.Stanton, P. Coutu, J.R.Beasley, Airport Operations, 3rd Edit., Mc Graw Hill.
5. **Specific course information**
 - a. **Catalog description:** This course offers the students a systematic approach to the essential structures in the design of an airport. It covers all the necessary subjects where a civil engineer can intervene for a better exploitation at the level of the airport platforms or with airline companies. At the end of the course, students will be able to carry out the sizing of an aerodrome or to undertake its execution. On the other hand, students will also be familiar with aeronautical management.
 - b. **Prerequisites:** None.
 - c. **Required/Elective/Selected Elective:** Required course for Civil Engineering Students - Option Public Works and Transportation.
6. **Specific goals for the course**
 - a. **Specific outcomes of instruction:**
 - Introduce the students to Airports platforms,
 - Understand the different types of pavement structure,
 - Learn how to define the Obstacle Limitations services with the obstacles around the airport,
 - Familiarize the student with the CAN/PCN method,
 - Present to the students the different types of aids used at airports,
 - Present the different terminals and hangars at airports.
 - b. **KPIs addressed by the course:**

KPI	a1	c2	c3	e1	e3	f1	j1
Covered	x	x	x	x	x	x	x
Assessed							
Give Feedback							

7. **Brief list of topics to be covered and approximate number of lectures:**

1. Introduction (2:30 hours)
2. Aerodrome Data (2:30 hours)
3. Physical Characteristics of an Aerodrome (2:30 hours)
4. Obstacle Limitations Services (2:30 hours)
5. Aeronautical Pavements (2:30 hours)
6. Strength of Pavements, Introduction to ACN/PCN method (2:30 hours).
7. Visit to Beirut International Airport (Freight Stations, Control Tower and Technical Blocks, Navigation Aids, Lightings) (2: 30 hours).