GAU, School of Aviation, Aviation Management

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| **Course Unit Title** | Airlines Operations |
| **Course Unit Code** | AVM301 |
| **Type of Course Unit** | Compulsory, Aviation Management |
| **Level of Course Unit** | 3rd Year BSc |
| **National Credits** | 3 |
| **Number of ECTS Credits Allocated** | 5 ECTS |
| **Theoretical (hour/week)** | 3 |
| **Practice (hour/week)** | - |
| **Laboratory (hour/week)** | - |
| **Year of Study** | 3 |
| **Semester when the course unit is delivered** | 5 |
| **Course Coordinator** |  |
| **Name of Lecturer (s)** |  |
| **Name of Assistant (s)** |  |
| **Mode of Delivery** | Face to Face |
| **Language of Instruction** | English |
| **Prerequisites and co-requisites** | - |
| **Recommended Optional Program Components** | Basic background of Airlines and Air Transportation |
| **Objectives of the Course:** |
| * Teaching the Airline concepts and challenges.
* Teaching the main developments of a scheduling and flight plan.
* Teaching the fleet assignment and controlling procedures
* Teaching the fundamental principles of a crew assignment and gate management procedures.
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| **Course Description** |
| This course develops a consolidated understanding of the heavily complex economic and competitive environment in which the airlines are operating. Apart from the operational techniques, it also covers areas such as new routings, passenger trends and applied marketing. |
| **Course Contents** |
| Week |  | Exams |
| 1 | Introduction to Airline Operations |  |
| 2 | Overview of airlines, historical connections and general aviation laws. |  |
| 3 | Introduction to Flight Scheduling, Network Design |  |
| 4 | Introduction to Fleet Assignment |  |
| 5 | Fleet Assignment II, calculation and tutorials |  |
| 6 | Introduction to Aircraft Routing |  |
| 7 | Flight Scheduling and Fleet Assignment Exercises, Tutorials and Revision Class |  |
| 8 | Midterm Exam | Midterm |
| 9 | Introduction to Crew Scheduling |  |
| 10 | Crew Scheduling II, Hungarian Methods and Crew assignments |  |
| 11 | Airline Revenue Management Strategies |  |
| 12 | Introduction to Fuel Management System & biofuels |  |
| 13 | Gate Management and Aircraft Boarding Strategy |  |
| 14 | Revision, Exercises and Tutorial Class |  |
| 15 | Final Exam | Final |
| **Recommended Sources** |
| **Textbook:** Massoud Bazargan, “Airline Operations and Scheduling”, 2th edition, Routledge, 2016. |
| **Assessment** |
| Attendance | 5% |  |
| Assignments | 10% |
| Project-Seminar | 15% |  |  |  |  |
| Midterm Exam | 25% | Written |  |  |  |
| Quizzes | 10% |  |  |  |  |
| Final Exam | 35% | Written |  |  |  |
| Total | 100% |  |  |  |  |
| **ECTS Allocated Based on the Student Workload** |
| Activities | Number | Duration (hour) | Total Workload(hour) |
| Hours per week (Theoretical) | 15 | 3 | 45 |
| Presenting of observations and tutorials as report | 5 | 5 | 25 |
| Preparation of the homework | 5 | 5 | 25 |
| Quizzes | 2 | 11 | 22 |
| Supervision | 1 | 17 | 17 |
| Final Exam | 1 | 22 | 22 |
| Total Workload | 156 |
| Total Workload/30 (h) | 5.2 |
| ECTS Credit of the Course | 5 |