GAU, School of Aviation, Aviation Management

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| **Course Unit Title** | Aviation Safety |
| **Course Unit Code** | AVM406 |
| **Type of Course Unit** | Compulsory, Aviation Management |
| **Level of Course Unit** | 4th 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** | 4 |
| **Semester when the course unit is delivered** | 8 |
| **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 Aircraft Safety and Security |
| **Objectives of the Course:**   * Teaching an introduction to safety in aviation. * Teaching the basic components of safety management. * Teaching the fundamental safety concept in ATC, aircraft and etc. * Teaching the air crash investigation principles and the probability and/or statistics. | |
| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Course Description** | | | | | | | | | This course is a complete, fully updated guide to commercial aviation safety. Presenting the latest procedures and standards in general and international air traffic and regulatory agencies, this extensively revised resource covers the entire commercial aviation safety system—from human factors to accident investigation. | | | | | | | | | **Course Contents** | | | | | | | | | Week |  | | | | | | Exams | | 1 | Introduction to Aviation Safety and Security. | | | | | |  | | 2 | Human Factors in Aviation | | | | | |  | | 3 | Introduction to Safety Management Systems | | | | | |  | | 4 | SHELL Model and its applications | | | | | |  | | 5 | Accident Causation Models | | | | | |  | | 6 | Aviation Safety Issues: Introduction to Aviation Security and its environment | | | | | |  | | 7 | Exercises, Tutorials and Revision Class | | | | | |  | | 8 | Midterm Exam | | | | | | Midterm | | 9 | Aircraft Safety principles: Stability and Control devices | | | | | |  | | 10 | Safety in ATC environment. | | | | | |  | | 11 | Introduction to Airport and Runway Safety | | | | | |  | | 12 | Airport Safety and Probability analysis | | | | | |  | | 13 | In-class exercises: Airport Safety and Probability analysis | | | | | |  | | 14 | Revision, Exercises and Tutorial Class | | | | | |  | | 15 | Final Exam | | | | | | Final | | **Recommended Sources** | | | | | | | | | **Textbook:** Clarence Rodrigues and Stephen K. Cusick, “Commercial Aviation Safety”, 5th edition, McGraw-Hill Education, 2011.  **Supplementary Material(s):** Shari Stamford Krause, “Aircraft Safety: Accident Investigations, Analyses, & Applications”, 2nd edition, McGraw-Hill Education, 2003. | | | | | | | | | **Assessment** | | | | | | | | | Attendance | | 5% |  |  |  |  |  | | Assignments | | 15% |  |  |  |  |  | | Project-Seminar | | 15% |  |  |  |  |  | | Midterm Exam | | 20% | 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 | | | |