

**Department: Aerospace Engineering**  
**Level and Major: Undergraduate**

**Division: Flight Mechanics**

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**Course Title:** Introduction to Aerospace Engineering  
**Prerequisite** -

**Number of Credits:** 3  
**Lecturer:** Kamran Raissi

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**Course Description:**

Familiarize the newly entered aerospace engineer with an overview of the major, the subjects to be taken during the undergraduate study, as well as the aerospace vehicles.

**Course Goals and Objectives:**

Prepare and motivate the student for a four year program in aerospace engineering, give him/her an outlook of the future job prospects, and graduate education.

**Course Topics:**

- What is higher education
- What is engineering
- What is aerospace engineering
- Graduate studies in aerospace engineering
- Job prospect for aerospace engineers
- Airplane
- Helicopter
- Projectiles
- Satellite
- Spacecraft
- Engines
- Aerodynamic overview
- Flight mechanics overview
- Structure overview
- Propulsion overview

**The course aims to:**

Students gain the necessary competence for planning their education and future job.

**Reading Resources:**

- J. Anderson, "Introduction to Flight", McGraw-Hill Higher Education, 2005
- Anon., "Aviation Fundamentals". Jeppesen Sanderson Training Pr; 7th edition (1994)

**Evaluation:**

Homework  
Midterm Exam  
Project  
Final exam