

# MA 558- Unmanned Aerial Vehicle Design

<b>Course Code:</b>	MA-558
<b>UTAA Credit (Theoretical-Laboratory hours/week):</b>	3(3-0)
<b>ECTS Credit:</b>	6.0
<b>Department:</b>	Mechanical and Aeronautical Engineering
<b>Language of Instruction:</b>	English
<b>Level of Study:</b>	Graduate
<b>Offered Semester:</b>	Fall and Spring Semesters.

## Course Objectives

The systematic nature of UAV systems, which is achieved through the combination of many elements and their supporting disciplines, will be emphasized throughout this course. Although the aircraft element is but one part of the coordinated system, it is almost certainly the element which drives the requirements of the other system elements to the greatest extent. The aircraft itself will have much in common with manned aircraft, but also several differences which are explained. UAVs have many engineering disciplines, which include, of course, aerodynamics, electronics, economics, materials, structures, thermodynamics, etc., but the course scope intends to show how the disciplines are integrated into the design, development and deployment of the UAV systems. The other purpose of this course is to intensify the knowledge by means of weakly homeworks.

## Course Content

Unmanned Aerial Vehicles (UAVs) course provides important tools in understanding of UAVs. The course is composed of the topics related to mainly UAV systems, deployment purposes, and a short historical perspective for UAVs.

## Course Learning Outcomes

- 1-Be able to explain history of UAV systems,
- 2-Be able to define the design of UAV systems,
- 3-Be able to describe the main components of UAV systems,
- 4-Be able to define the deployment of UAV systems in army and navy,
- 5-Be able to compare the deployment of UAV systems in the air force,