

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

**Division: Flight Mechanics**

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**Course Title:** Satellite Assembly, Integration, and Testing **Number of Credits: 3**

**Prerequisite : -** **Lecturer : Kamran Raissi**

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**Course Description:** The prerequisite, the requirements, the resources, and the procedures for assembly, integration and testing of a satellite based on the satellite definition and requirements.

**Course Goals and Objectives:** Learn the knowhow of AIT for a satellite and perform the necessary steps to reach the final product.

### **Course Topics**

- Definition
- Model philosophy
- Planning
- Infrastructure
- Equipment
- Documentation
- Reviews
- Interfaces
- Integration process
- Assembly process
- Performance test
- Function test
- Integration test
- Environment test
- Safety considerations
- Quality assurance

**The course aims to (outcome): Ability to perform a satellite AIT.**

**Evaluation:** Homework  
Midterm Exam  
Project  
Final exam

### **Reading Resources**

NASA handbook of system engineering  
ECSS Standards