#### Introduction and Overview

## Shankar Kulumani Flight Dynamics & Control Lab

#### THE GEORGE WASHINGTON UNIVERSITY

WASHINGTON, DC

### Overview

- Projects Overview
- Installing Python
- Programming Guidelines
- Course Goals
  - Use high-level programming language to solve engineering problems that will be encountered in engineering courses
  - Course will focus on computer programming for astrodynamics
  - Emphasis on well documented, structured programming, debugging and unit testing to verify that code is correct

## Course Outcomes

- By the end of the course
  - Write programs to solve basic engineering problems in astronautics
  - Develop structured code in a high-level programming language
  - Document programs so they are easier to maintain and modify
  - Debug and test in a systematic fashion to ensure code is correct
  - Create library of code to perform common astrodynamic functions

# Getting Help

- For most (if not all) students, this course will be extremely challenging:
  - New content astrodynamics and Python
  - Structured programming systematic, documentation, unit testing
  - Technical writing
- Answers to your problems will rarely if ever be given to you. You'll need to discover and learn these skills through focused effort. You have several sources of help:
  - Instructor
  - Classmates may ask each other for help.
  - ALL WORK MUST BE YOUR OWN.
    - Copying
    - "Working together"
    - Plagerizing
  - Textbooks/Internet reference not copying

