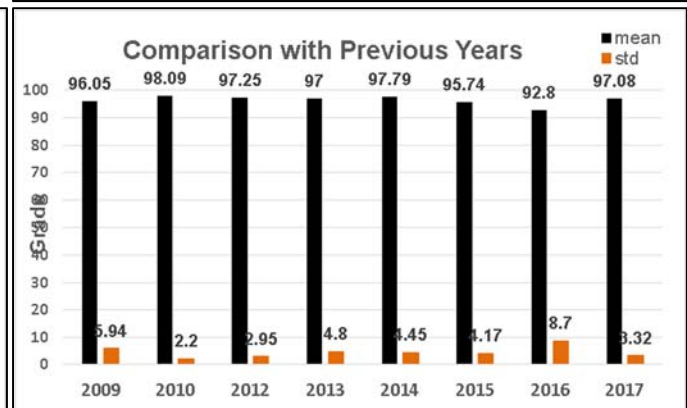
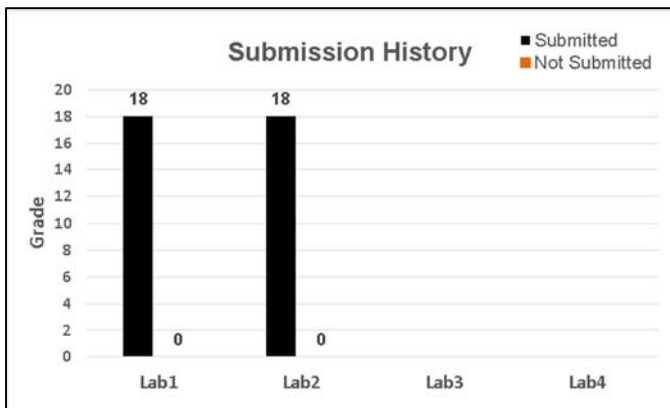
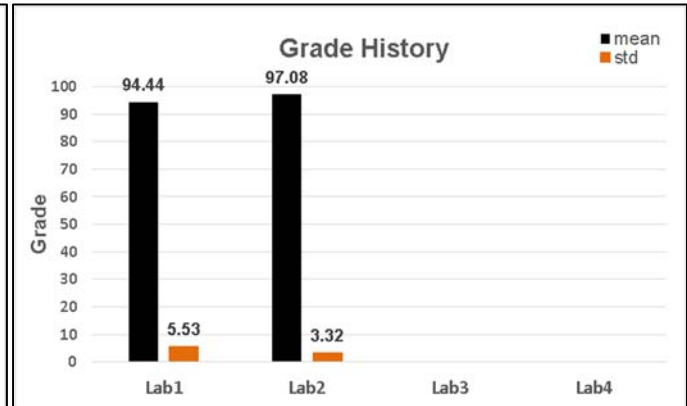
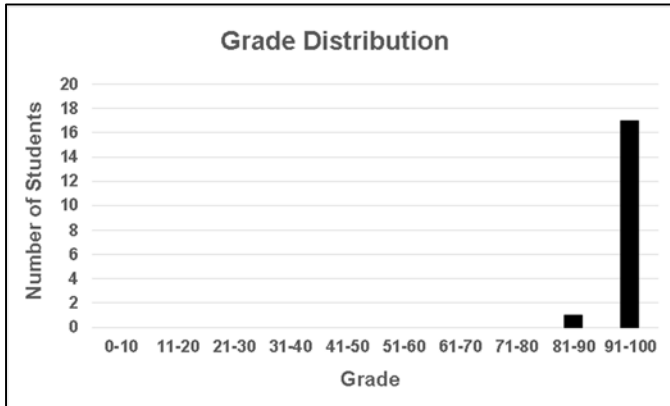


CFD LAB #2 REPORT

General

Number of students	18
Number of submitted reports	18
Number of not-submitted reports	0
Grade average	97.08
Grade standard deviation	3.32



Common Mistakes

Exercise 9.1

- None

Exercise 9.2

- Some students were explaining about asymptotic range and grid uncertainty for pressure coefficients. The exercise was questioning for C_L , so you can answer with 'P' and 'Ug' value from the C_L V&V table. In case you need to answer for pressure coefficients, averaging 'P' and 'Ug' might be a good idea.

Exercise 9.3

- Some students didn't provide C_L time-history.

Exercise 9.4

- None

Exercise 9.5

- Some students didn't explain about the source of the error for both CFD and EFD.

Positive Feedback

- It was a good chance to analyze the flow around the airfoil
- Changing parameters was easy and quick

Negative Feedback

- Exercise parts were confusing
- Manual will be improved especially for Ex 9.2.

Suggestions

- Students need to know how to make the airfoil geometry
- You can easily find the coordinates for many airfoils on the internet. Surfaces are linearly connected,
- More AoA should be tested for C-mesh
- More AoA should be added during the test
- AoA should be larger so that stall can occur
- More comparisons are needed for C and O mesh
- Analysis for the symmetric airfoil
- Need more explanation about certain methods
- Source of the EFD data is unknown
- Analysis using higher order schemes
- For C-mesh, it is hard to change the AoA since the grid should be changed.
- It should be a nice future work to compare more variables between the C and O meshes
- More AoA or higher AoA would be a nice study but the current study was limited to 6 degree.
- Rn should be checked
- You might find local Rn in the postprocess part.