

## **AE 345 Aircraft Propulsion Laboratory**

AE 345 will have the following 3 experiments:

Experiment	TAs	
	In-charge	Running experiments
GTE	Lissen Sam	
SSC	Harpreet Kaur	
SDSM	Pankaj Niranjan	

Location		
GT	Gas Turbine Engine	Propulsion Lab, Ground Floor, Aero Main Building
SSC	Single stage compressor	Virtual Instrumentation Lab – 1 <sup>st</sup> floor, Aero Main Building
SDSM	Spray Droplet size measurement	Propulsion Lab, Ground Floor, Aero Main Building

Important Notes:

1. **Each student will run the experiment and record their own readings for SSC and GT.**
2. **A group of two students will be made for SDSM, who will run the experiment.**
3. The slot-wise allocation of each student/group for every experiment.
4. **100% attendance is compulsory. A student not appearing during the specified slot will be marked as ABSENT. There is no scope for missing any experiment. One absence would lead to a DX grade.**
5. The grading will be absolute.

Marks Distribution:

1. On-time report submission: (3x15) 45 Marks; Late report submission: (3x10) 30 Marks
2. Before Experiment Viva – 10 (average of 3 experiments)
3. Viva during report submission – 15 (average of 3 experiments)
4. End Sem Exam: 30 Marks
6. Evaluation of report submitted on time - 15 maximum marks.
7. Late submission is allowed, but 10 is the maximum mark.
8. A report (prepared on Microsoft Word/Latex/Open Office) of **no more than 4 pages** is to be submitted before you conduct the next experiment. **The graphs plotted in Microsoft Excel are not allowed in the report.** It is advised to use either Python, Matlab, Origin, Tecplot, Grace plot, or other professional tools for plotting.

## **Safety Protocols/Guidelines**

### **Lab Attire/Dress code safety rules**

Appropriate attire should be worn at all times in the lab.

- Long pants and shoes completely covering the foot should always be worn in the lab.
- Use Lab coats to protect your clothes and skin from exposure to chemical or biological agents and flames in some cases. If a lab coat is not available, wear a full-length, half-sleeve shirt/t-shirt and stay 3-4 feet away from the experimental setup.
- Always tie back hair that is chin-length or longer.
- Make sure that loose clothing or dangling jewellery is secured, or avoid wearing it in the first place.
- Sandals or other open-toed shoes are not allowed in the lab. Footwear should always cover the foot completely.
- Clothing made of synthetic fibres should not be worn while working near flammable areas or when a hazard is present, as these materials tend to melt and stick to exposed skin.
- Shorts or skirts and loose clothes are not allowed in the lab.
- For experiments related to flame and fire, utmost care must be taken for safety. Lighted splints, matches, etc., and acrylic nails are not allowed.

### **No Food or Drink**

Eating items (food, snacks, beverages, gum, etc.) are not allowed during the experiment.

### **Mobiles are not allowed while attending the experiments**

The use of mobile devices during the experiment is prohibited.

### **Penalty**

If any student is found violating the above, S/He will be allowed to continue the experiment but will be marked as absent and hence will be awarded a DX grade.

- If TAs are found violating the above, their TA form will not be signed.