# Report Writing

The basic idea is to write lab reports in the general style of a scientific paper.

This has the following format:

**Title & Authors**

**Abstract**

The abstract is a very concise summary of what was done and the key results (it is typically 5-10% of the length of the report). For the ATMS 451 reports stick to the rule of 200 words or less.

Imagine that you are a researcher who has never seen the lab, and knows nothing specific about the instruments you are using. Could you understand what was done and the key result?

It is usually best to write the abstract last, after writing the rest of the report.

The abstract *must* contain:
1. The Purpose
2. Key result(s)
3. Most significant point of discussion
4. Major conclusion

The abstract *may* contain:
1. Brief method
2. Brief theory

## 1. Introduction

1.1 What you were going to do
1.2 Why you were going to do it – background material
1.3 Brief overview of how it was done

## 2. Experimental Methodology

2.1 What instruments you used (including diagrams where necessary and helpful)
2.2 Calibration of instruments (including diagrams, as necessary)
2.3 Venue: deployment of instruments

## 3. Results and Discussion

3.1 Data – describe the data you collected (include graph(s) where necessary)
3.2 Problems with data/ instruments – describe these
3.3 Calculations (including equations) – these should be transparent, i.e. don't miss steps out and confuse the reader.

**4. Conclusions**

In general, this is somewhat like the abstract, except longer and more expansive.

4.1 Refer back to the introduction: Did you accomplish goals?
4.2 If not, why not?
4.3 Interesting results (peculiarities)

**5. References**

If you used any references, then it is good to describe them.

Be detailed: in the text you write (Wallace and Hobbs, 1977, p.50)

In the reference list, you write alphabetical order:

Wallace, J. M. and Hobbs, P. V. *Atmospheric Science: An Introductory Survey*, Academic Press, New York, 1977.

Other rules:

1. Use SI units
2. 12-point font
3. Page limit: 4-5 pages, figures at the back