Principles of Scientific Writing (summary of WIS course)

Abstract (one paragraph) Present/Past passive/Past/Present tense

Introductory sentence describing the background (present tense)

Objective (the scientific hypothesis/question)

Short description of the experimental system (past passive tense)

Qualitative description of the results (3-4 sentences, without numbers; past tense)

Conclusion (present tense)

Introduction (5-6 paragraphs) Present tense

Introduction of the topic (1 paragraph)

Review of relevant literature (3-4 paragraphs)

Statement of objective/hypothesis/prediction

Short description of experimental systems (1-2 sentences)

Preview of findings & conclusion (last paragraph)

Conclusion (1-2 sentences)

Methods Past passive tense

Description of methods used in a logical/chronological order

Include subheadings & references

Do not repeat published methods – describe them briefly and include references

Results Past tense

A series of units that appear in the logical/chronological order of which the results rely on each other

Use subheadings

The structure of the basic unit should be:

1. Purpose/motivation of the experiment (Phrases: In order to test/determine/compare/To further evaluate/characterize)
2. Brief description of the method used (no need to repeat the whole description)
3. Reference to a figure or table
4. Brief conclusion from the result

Figures and Tables

Use graphs to display trends, values as a function of a continuous function etc.

Use bars to display values that are not a function of an obvious continuous function

Use tables for detailed quantification of the results

Within the text, insert comments e.g. ‘Fig. X about here’

Figure Legends Past passive/Past tense

First sentence is the title

Provide information to understand the data shown

Brief description of methods (especially analysis) specific to the figure

Main result(s) presented in the figure

Discussion Present tense

Summary of the results and conclusions

Bridge among the sub-units of the results section

Relate your work to other studies in the field: 1) If the results are the same – why did you run the experiments? 2) If the results are different – can you explain the reason?

Respond to anticipated criticism

Significance of the findings

Conclusions drawn from the results

Future plans?