# sba21725 - MSc in Data Analytics

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Github Repo: <https://github.com/sba21725/MSC_DA_CA1>

## Abstract

*It is a useful and common practice to put the abstract in Times New Roman 12-point italics. Throughout this document the styles used reflect the styles we suggest you use in your scientific report*.

## Introduction

Format your submission using the following styles as a guide. If you are completing your report for a specific assignment, make sure you follow any formatting guidelines provided by your supervisor, lecturer or tutor.

### Normal Text

In general, use a 12-point Times New Roman font, or other Roman font with serifs.

### Title and Authors

The title (Arial 14-point bold) runs across the full width of the page and is centred. Authors' names (Arial 12 point not-bold) and affiliations (Arial 12-point not-bold) are entered into the table at the top. We also recommend you add your postal address and e-mail address using the same style as for authors.

### Abstract and Keywords

Every submission should begin with an abstract of about 100 words in the normal text style but italicized. The abstract should be a concise statement of the problem, approach, findings, and conclusions of the work described. Keywords will be taken from your submission form and added when the publication is assembled.

### References and Citations

In the body of the text, cite the references like so (author, year).Use the standard Harvard format for listing references at the end of your report. You can refer to the reference list at the end of this document as an example.

### Page Numbers and Footnotes

Make sure you number pages unless explicitly asked not to. (For example, many journals request that page numbers are *not* used in submission for publication.) In general, avoid the use of footnotes. Stick to using references and citations.

## Sections

Breaking your report into sections can make it much easier to read. Main sections (Introduction, Materials and Methods, Results and Discussion/Conclusions should generally be in Arial 12-point bold title-case or follow specific instructions given with your real assignments.The use of screen shots or diagrams to enhance your explanations is encouraged.

### Subsections

Arial 12-point title-case.

#### Sub-subsection headings

Arial 12-point italic.

## Figures

Use Normal Times New Roman 12-point font for figure captions.

## Writing Style

* Use a simple writing style – if five words convey your meaning don’t use ten.
* Make use of headings and sub-headings to break the text and your key ideas into readable sections.
* Use past tense apart from descriptions about existing knowledge and results when you should use the present tense.
* Be specific about observations and quantities.
  + Avoid the use of adverbs (quickly, rapidly, slowly).
  + If a word you are using ends in 'ly' the chances are you can provide a measurement instead (over five minutes *instead of* slowly).
  + Be careful with adjectives which refer to quantities (few, lots, many).
  + Provide actual amounts (three Mayflies *instead of* a few Mayflies).
* Always back up your assertions with data or logical argument and references.
* Use a spell checker or dictionary before you print out or submit your final report.
* If you are unsure about grammar ask a friend or someone who is good at writing to read through your draft report.
* Do not use derogatory language and be careful and considerate if you criticise the work of others. Stick to the arguments and facts.

## Acknowledgements

The idea and parts of the formatting for this template came from the Association for Learning Technology (UK) ALT-C 2004 Research Paper Format Template.

## References

Knisely, K. 2005, *A Student Handbook for Writing in Biology*, 2nd Edition, Smauer Freeman.

Pechenik, J. A. 1997, *A Short Guide to Writing about Biology*, 3rd Edition, Addison-Wesley.

Silyn-Roberts, H. 1996, *A Practical Handbook for Science, Engineering and Technology Students,* Longman.

Harvard Style *UseIt,* Available at <http://www.library.uq.edu.au/training/citation/harvard.html>

Abstract

1 Introduction

Machine Learning in Tourism (Egger, 2022). Data Analytics in Industry 4.0 (Duan, 2021)

2 Related Concepts

3 Current Interdisciplinary Research between Data Analytics and Industry 4.0 (lit rev)

4 Conclusion e Future Research Direction

Materials

x Methodology

Interdisciplinary approach in Data Analytics aiming at discovering patterns in data and making predictions. A Human Computer cognitive learning process will be employed. {four way of thinking book}

Research approach

1. Business Goal (Research Questions)
2. Data Sources

Data are collected from cso web site using REST API.

Difficulties related to data analytics reasoning. The aim of the author is conveying the findings related to the Tourism in Ireland and the learning approaches employed. In order to create this document you need the master the following skills:

1. Data Visualization
2. Data Manipulation

Programming approach

The programming approch is iterative delivered by Jupyter Notes and the present report

List of sectors:

1. Statistics
2. Programming
3. Algorithms (for Machine Learning)

Results

Discussion

Conclusion e Future Research Direction

Reference

# Bibliography

Duan, L. a. D. X. L., 2021. Data analytics in industry 4.0: A survey. *Information Systems Frontiers,* pp. 1-17.

Egger, R., 2022. Machine Learning in Tourism: A Brief Overview: Generation of Knowledge from Experience. *Applied data science in tourism: Interdisciplinary approaches, methodologies, and applications,* pp. 85-107.

Annex