



Research Skills

06-06991

Autumn 2013

LaTeX and BibTeX: formative exercise

What this exercise is intended to do

To ensure that you have the experience of producing a fairly basic LaTeX document with an associated BibTeX file. The LaTeX commands used in this exercise are either those essential for producing a LaTeX document or examples drawn from groups of commonly-used non-essential commands (e.g. font controlling commands).

Limits to the exercise

The point of this exercise is about using LaTeX, not writing large amounts of text. For this reason, you are asked to copy text from a public domain source. Please attempt to include all elements of LaTeX specified below. If you want to widen your experience and knowledge of LaTeX and BibTeX, you are welcome to do more formatting and to add more references than are set out below. However, remember that doing more of the same won't teach you much. For instance, if you teach yourself how to reference one journal paper, you won't learn much more by referencing another journal paper so reference a different kind of publication, such as a book or conference paper.

Selecting your text

Using Wikipedia, select the biography of a Nobel Prize-winner. Copy and paste the text of the article into your favourite editor that you use with LaTeX and then get formatting

Top-level formatting

You should use the built in "article style", A4 paper and 12 point type. The bibliography style should be the in-built "alpha".

Preamble

The preamble is where you have to declare any packages that you need. You will also have to give the title of your article and the author.

The text: sections, paragraphs, etc

Make sure your first paragraph is *not indented* and that the first instance of the subject of the biography is in **bold type face**. Add a footnote to explain why you have chosen this particular prize-winner.

Divide your text into sections.

There are relatively few traps for the unwary in this kind of exercise. Do check that you haven't used any of the reserved characters by mistake (e.g. by typing "she was awarded \$1m" instead of "she was awarded \textdollar1m"). Inverted commas/speech marks ("...", '...') regularly catch beginners out.

Environments

Find some text you can format as an itemized list. There is usually a list of honours and awards which is easily adapted.

Use the figure environment and include one image – a photograph of the subject of the biography is an obvious choice. Make sure your image has a caption. (Hint: you may find that `\includegraphics`'s optional `scale` parameter is useful. Examples: scale by 50%: `scale=0.5`; scale by 200%: `scale=2.0`.)

Bibliography

Include references to three publications. Use a separate BibTeX file. The bibliography should appear at the end of your document. You should use the in-built "alpha" style (unless you want to be more adventurous and use an external package such as Chicago).

Is this task humanly possible?

Yes! There is an example based on the Nobel Physics Prize-winner Antony Hewish on Canvas.

What you need to submit

PDF of your biography; LaTeX source file; BibTeX source file.

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Checklist – have you included at least the following before you hand in your work?

- “article” style
- 12 point font
- A4 paper
- Title
- Author

- Sections
- Bold type face for a small part of the text
- First line *not* indented
- Footnote
- Environment – itemized
- Environment – figure (with caption)
- Image included

- 3 references to items in the bibliography
- 3 distinct items in the bibliography (i.e. not the same item repeated three times)

- Hand-in files
 - PDF file
 - LaTeX source file
 - BibTeX source file

Submission

Through file up-load on Canvas.

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