An Amazing Proposal Title

AMAZING STUDENT

Department of Physics and Astronomy, College of Charleston, Charleston SC

AWESOME MENTOR (MENTOR)

Department of Physics and Astronomy, College of Charleston, Charleston, SC
Here you say – briefly! – what you plan to do and how you plan to do it. What are your anticipated outcomes?
1. Introduction

This is a reasonable template to use for your proposal. You have presumably done some
scientific writing before, but this document will probably be a bit different than things you
have written in the past.

For this whole document, you should view your audience as one of your professors. In
short, someone who knows plenty of Physics, but may or may not be an expert in the
particular area you are proposing to do work in. If you use jargon or acronyms, you should
clearly define and explain them on their first occurrence.

The introduction section should give some background/context and – depending on the
project – possibly some motivation as well. Bring the reader up to speed on the big-picture
here. Remember, the reviewers may not be overly familiar with your field.

This section should have some (appropriate) references. No factual claim should be made
without either evidence or a citation (though keep it in reason. I think we’re all on board
with $\vec{F} = \dot{\vec{p}}$). If it is at all possibly surprising to the reader, you should cite it. When
in doubt, have a citation. The specific format for referencing can vary from subdiscipline
to subdiscipline and from journal to journal. Here, the most important thing is that you
are self-consistent. For example, the pair-correlation function is a scale-localized measure of
deviations from perfect randomness (see, e.g., Larsen (2012).)

2. Goals

What do you expect to accomplish? What will the product of your work be? Might it
ultimately result in a publication? This is generally big-picture stuff.
3. Method

How will you accomplish your goals? What approach will you use? What things will you need to make it happen? What will you measure? How will you measure it? How will you analyze your data? What will the analysis allow you to conclude?

This section serves a couple purposes. (1) it ensures the reviewer that you have a plan, that your plan is reasonable, and that your plan makes sense. (2) it allows the reviewer to get a handle on the nature of the work you’re going to have to tackle so they can assess your ability to actually complete the proposed task. (3) it forces you to think your way all the way through the project so you have a big-picture idea of what’s going on.

Some sort of figure/graphic in this section is strongly encouraged, especially if it helps you get your ideas across more clearly or succinctly.

4. Resources

What facilities, supplies, space, computers, programs, expertise (etc) will you need? If the resources you need are already in place, then the reviewer needs to know that. The reviewer needs to know that you know what resources you need and that you have a plan to procure/acquire them if they are not already available.

5. Budget

Not everyone will need this section, but if you are asking for any money to do anything, make sure you include a detailed budgetary breakdown. If you need to buy/acquire something, you need to do your homework! You should know what it costs, and how you’re going to get the money to do it. In particular, if you need money from the department to complete your work, you should talk with your instructor to see if it is plausible. Some narrative may be appropriate here, as may a table/list.
6. Timeline

Reviewers LOVE timelines. When do you plan on executing specific aspects of the project? Include things such as presentations at meetings, target dates for report completion, milestones in accomplishing particular steps outlined in the method section, etc. This cries out for a table of some sort. It is hard to do science on a particular timetable – we know that – we also know that this probably won’t exactly match what will actually happen. Again, this is more about developing a specific plan than actually staying with it.
APPENDIX

Appendix (If Necessary)

If you have any materials that should go in an appendix, then put them here.
REFERENCES

List of Tables

1 This is a sample table caption and table layout. Enter as many tables as necessary at the end of your manuscript.
Table 1. This is a sample table caption and table layout. Enter as many tables as necessary at the end of your manuscript.

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List of Figures

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FIG. 1. Enter the caption for your figure here. Repeat as necessary for each of your figures.