PHY229 Article

DEADLINE.

The deadline is midnight Monday 13th April.

Email me a .pdf electronic copy of your article before the deadline.

I will run your article through turnitin for plagiarism checks.

You have picked a topic at random from the bag. Everybody has a different topic, and the subjects range across all sorts of things of interest to astrobiology. The topics are picked to be outside of your comfort zone.

You have to write an article about that topic (or some aspect of it). There is no word limit, write as much as you think you need to. Remember this is worth 20% of a 10 credit module.

You have as much flexibility in interpreting your title as you want. You might want to talk about a particular aspect in detail, or over-view the whole topic. Please ask me if you have any questions about this.

Audience and goal

Your audience is somebody else on PHY229 – assume they know as much as you did before you started researching the topic. Your goal is to explain the topic (or some aspect of it) to this audience.

Assessment

I will mark based on four main criteria:
1. **Content.** Is the information in the article correct and relevant? This is clearly crucial.
2. **Level.** Is the level right for your audience?
3. **Structure.** Is the information presented in a sensible, logical order for the reader to follow?
4. **Style.** Is the article well-written? Is the English clear and simple and readable?

Each topic is different. Some topics can be quite technical, others quite broad. The differences in topics will be accounted for in the marking.

Plagiarism.

It is your responsibility to know and understand the University's rules on plagiarism. There are no excuses for plagiarism.

The best way to avoid accidental plagiarism is to never write with the source next to you. And never copy and paste material from a source and then try to reword it. Make notes from the source and write from your notes.
References.
You must reference your sources. You might want to reference sources in the text as you use information from them, or you might want to list your sources at the end, or you might want a mix of both. This depends on your topic and the style of your article. Use your common sense – the goal of referencing is to allow the reader to easily find that information for themselves if they so-wish.

Wikipedia and websites.
Wikipedia is a great place to start your research, but it is not a proper source. Use it to gain an overview (technical articles are almost all very good, the ones I know about contain no significant errors), and then follow this up with textbooks and (review) articles.

Space agency, academic and official websites are usually proper sources (but be careful with using lecture notes from a course). Places like NASA, ESA, USGS are really good resources for some things.

Figures.
Use as many or as few figures as you think you need. All figures need a caption which describes the figure and references the source. All figures must also be referenced in the text – if they are not talked about in the text there was no need for them.

Style and English.
Keep your writing simple. Short sentences and easy words work best. Do not think that the more convoluted your sentences and the longer the words mean that it is better writing. Your goal is to transfer your knowledge and understanding to the reader in the clearest, simplest way possible.

If you use any technical terms think if your audience will understand them. If they will not understand a technical term then either explain/define it, or don’t use it.

Proof-reading.
Check your article. Read it aloud (this really helps). Spell-check your article. If you can, get somebody else to read it (and you read theirs). Does each sentence say what you want it to say? Are paragraphs coherent entities?

How to write a bad article.
Wait until 2 days before the deadline, cobble together some half-understood information from wikipedia in a fairly random order and not have time to think about it or proof read.
An important note on referencing sources.

If you reference a source I assume you have read it and understand it.

I reserve the right to call anybody in and ask them what their sources say and ask them to show me where the information came from.

If you read a review paper or text book article which contains references you never quote those references as your sources unless you have gone and read those sources yourself.

For example if in Goodwin (2013) it says the following: ‘It has been known for a long time that many stars are physically associated in binary and multiple systems (Mitchell 1767). Recent studies suggest that many, possibly most, stars in the field are in multiple systems (e.g. Duquennoy & Mayor 1991; Fischer & Marcy 1992; Lada 2006; Bergfors et al. 2010; Raghavan et al. 2010; de Rosa et al. 2012; Janson et al. 2012). Numerical experiments have shown that it is extremely difficult to dynamically produce a binary in star-forming environments (Clarke & Pringle 1991; Kroupa 1995), which suggests that almost all binaries form as binaries. Therefore, the properties of binaries should contain a significant amount of information on the star formation process.’

You cannot reference any source other than Goodwin (2013) unless you go and read those sources and confirm that they do indeed say what you are claiming they say. And, yes, I have read Mitchell (1767) – quite a tough read...

Primary literature. I.e. journal articles. You probably will not need to go into the primary literature. Journal articles tend to be very technical and difficult for a non-expert to understand. Text books tend to be better as they summarise the material for a lower-level audience. Review articles tend to be the best type of primary literature – but remember to cite the review not the sources in them unless you go and read and understand them.

‘Predatory’ journals. Just because a journal has a sciency-sounding name does not mean that it is reputable. Unfortunately in the last decade an increasing number of ‘predatory’ journals have appeared which charge for publication and will accept anything (including famously a paper that just repeated the phrase ‘Get me off your f**king mailing list.’). If the University has a subscription to a journal then it is a ‘proper’ journal, otherwise check (there are lists of these predatory journals online).

Not everybody agrees. Just because you find a paper that says ‘X’ does not mean that everybody believes ‘X’, or even that many people do. Review articles and textbooks are the most useful as they provide either the accepted view or give the different views.

Articles in newspapers/magazines. Be careful with these. An article written by an expert is a proper source, an article written by a journalist is not. Journalists often get things wrong because they are not experts. ‘New Scientist’ articles are only proper sources if they are written by a scientist working in that field. I recommend ‘Scientific American’ as their articles are written by experts.