



## Chapter 5 Essay Writing

The writing of a scientific essay involves researching from primary and secondary literature and providing a summary and synthesis of the current understanding in a particular branch of science. They should be written for a specialist scientific audience in a detailed, concise and referenced manner.

Wikipedia is not considered a reputed reference for information, but may provide some opportunities for a starting point during an internet information-seeking session. In general there are very few websites that can reliably be accepted as reputed references, among which may include some government and professional association websites. Only peer reviewed primary (research) and secondary (review) sources should be considered for the bibliography as references for your sources of information. As the author of a specialist essay, you should be familiar with all the pertinent anterior and current research on the subject.

Essay writing is not something that happens quickly and it is important to recognize that all good manuscripts go through several editions and revisions before being considered finished. Not only do individual authors revise their own work continuously over a period of time, but few works of quality were drafted entirely by an author working in isolation, and the contribution of a second or third party editor is usually considered to be of paramount importance in creating a document that is of robust quality. The writing of a scientific essay is therefore a long term one, that should be planned in advance with meticulous literary research, reading and note taking and finely tuned with writing and editing over several weeks at a minimum.

Essays are expected to be written by the students submitting them and therefore any sentences, concepts or ideas not invented by them should be attributed with a reference to its original author. Otherwise, it is considered plagiarism and is a serious offence at the University of Ottawa (like at any other educational institution) and in the field of Science in general. Plagiarism is equal to theft of intellectual property and every year students receive sanctions for plagiarism (including the occasional expulsion from the Faculty and/or the university itself!).

Essay writing not only helps to develop in students an ability to conduct independent literary research but also to communicate it in writing at a specialist level. While the standards of language at that level are high, it is important to always write in your own words, even when paraphrasing someone else's ideas. With internet search engines such as Google and anti-plagiarism sites such as [www.turnitin.com](http://www.turnitin.com) available ubiquitously nowadays it is easy to match dubiously plagiarized sentences with their original source, so do not risk the punishment of failure or expulsion associated with plagiarism. Rather, students should embrace this as an opportunity to express detailed thoughts on a biological subject in their own words and using sentences of their own construction.

Just in case you missed them, please familiarize yourself with the University of Ottawa's document on plagiarism, as well as the guide published by the Student Academic Success Service of uOttawa on avoiding plagiarism (see figures 5.1 and 5.2).



Figure 5.1 Use this QR Code to access the online document for the University of Ottawa's document on plagiarism.



Figure 5.2 Use this QR Code to access the online document from the SASS of uOttawa on how to avoid plagiarism.