**Are We Alone in the Universe? Writing Outlines Assignment**

Whether you are writing a lab report, an essay, a journalistic piece or a scientific journal article, it is imperative that you plan before you put pen to paper or fingers and thumbs to keyboard; if you fail to prepare, you should prepare to fail!

Some people believe that producing a plan (or a writing outline) is a waste of time, thinking that valuable hours used this way could instead be spent on actually writing or editing the piece of work the outline is designed to guide. However, without a well-defined writing outline, it is surprisingly difficult to put your thoughts into text in a balanced, logical way, and this just makes the editing process even more of a headache. Ultimately, you will find that you save much more time by creating and using a writing outline.

There are three main stages to producing any piece of scientific written work. These are:

1. **Researching** (finding, reading, and making summaries of interesting, relevant work to include in your writing)
2. **Writing** (***creating and using a writing outline***, drafting and revision)
3. **Editing** (cutting unnecessary content, tightening up grammar, adding in topic sentences and smooth transitions)

In this assignment you will focus on the **first two stages** as you plan how to write a balanced 600-700-word essay that answers the prompt: ***Are We Alone in the Universe?***

**Research – The Literature Search (15 marks)**

Reading lots of relevant material is important to make sure you are able to present an up-to-date picture of the current thinking in the area of research you are writing about, but the more you read, the less you remember, and the less you remember, the more you forget! This is why it is vital that you make short summaries of work that you read, in case you wish to cite this material in your written draft. Even if you are working with a relatively small number of sources, you’ll be surprised how quickly you forget content, and how often you have to re-read articles when it comes to writing your piece.

In this assignment, you will need to compile a document that comprises four or five lines of information outlining the major content and/or arguments made by the author(s) of each article that you wish to cite in your essay. You will also plug some of this information into your writing outline in the second stage.

Before beginning, read our resource on finding sources (http://scwrl.ubc.ca/student-resources/finding-identifying-and-citing-sources/) for tips on researching the literature.

* Try to produce your document of written summaries for **at least five** primary or secondary sources that you would cite as part of your essay.
* Try to produce a balanced list (e.g. not just articles arguing only one side)
* Include full citation details of the articles, including the authors’ names, the year of publication, the article title, journal title, journal issue number, and page numbers. If possible, also include a link to the article if it is online.

**Planning – The Writing Outline (Part I, 10 marks)**

Aim to break down a plan into sections and sub-sections that will each need to be addressed in your essay. Think of the *Contents* page of a book: this is what you writing outline should look like, with each *chapter (or paragraph)* building on the one before and ‘signposting’ a change of direction in terms of content.

One of the most important parts of any outline is the logical development, which should help you write a balanced essay when it comes to putting pen to paper. In fact, without an outline, a writer may well include the same content but the final document will typically lack focus and read as though lots of information has just been clumped together. Remember this when putting your outline together, and ensure you link related elements together so that a reader could understand how you plan to build your case.

**Planning – The Writing Outline (Part II, 5 marks)**

Once you have your completed writing outline in ‘*chapters*’ form, you can start to plug in information from the material you summarized. You can do this in abbreviated form (e.g. bullet-points), but make sure you use some sort of coding system so you (and your instructor) know which source the information is coming from.

**An Example Writing Outline**

As a guide, the outline below was produced to help write an essay about whether planting native grassland plant species could help reduce the spread of a very invasive species (cheatgrass).

**\*\*** You will need to use more development statements in between each paragraph (and state what these statements will be) to score highly \*\*

\*\* When it comes to writing an essay you will not cite the same information again and again, but should still indicate in your writing outline where the source of information has come from. This will help you decide where best to cite it initially in your essay, and may help you decide where and when you need to cite the same source further along \*\*

**1: Introduction**

**a) Thesis statement:** Native species can suppress invasive species in Canadian grasslands but some are more effective than others.

**b) Development statement:** Outline what will be discussed, and in what order

**2: Cheatgrass and Native Species**

**a)** Biological information about cheatgrass (style of growth, lifespan, origin)

**b)** Biological information about common native species in Canadian grasslands

**c)** How native species may suppress invasive species (examples of competition)

**3: Relevant Experiments**

**a)** Lab-based experiments that tested whether cheatgrass can be suppressed

**b)** Field experiments that tested whether cheatgrass can be suppressed

**c)** Common findings:

i) Which species are successful at suppressing cheatgrass

ii) Which species are unsuccessful at suppressing cheatgrass

**d)** Other factors affecting success/failure (environmental factors)

**4: Implications**

**a)** What does this mean for conservationists trying to suppress cheatgrass?

 i) Native species may be successful, but only in certain environments

 ii) Some results are still unpredictable

 iii) Sometimes other methods (such as controlled fires) may be needed

**b)** Which species and environments might see the greatest success?

**5: Conclusion**

**a)** Reiterate opening thesis statement to underline the argument made