**GEOG 300: guidelines for the Critical thinking papers**

# Assignment Overview

The process of thinking critically begins with an open mind, then forming conclusive ideas and arguments later. **In this class, you will write** **three Critical Thinking (CT) papers** **valued at 70, 80, and 100 points each**. Critical thinking papers (CT papers) should not cover both sides of an issue; they are “position” papers, meaning they should read as an argument paper.

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*Carefully review this form.*

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*Carefully review this form. You will need to initial and submit it with each CT paper.*

# Minimum Requirements of the CT Papers

**To receive *any* credit for your paper, it must meet the following three requirements:**

1. **Use a minimum of four acceptable sources** to avoid a paper score of zero. An “acceptable” source for this assignment is a peer-reviewed publication that has been published in the last 10 years (*see page 4*).
2. **All primary sources must be cited in the text of the paper** using the required format for the in-text citations ONLY to avoid a paper score of zero (*see page 4*).
3. **The paper must adhere to the Critical Thinking Paper format as outlined belowto avoid a paper score of zero** (*see pages 2 & 3*).

Additionally:

1. **One point will be deducted for each word over or under the required word counts**. The CT paper must stay within the 500-550 words range, with an *Analysis* of 400-450 words (*see page 5*).
2. The topic of each of your CT papers must be based on a topic assigned to your student ID number (*see page 5*).

# Required Format for the CT Papers

The CT papers follow a very specific format, compartmentalized into eight sections. 🡪 **To avoid a paper score of zero, all papers must follow this format** – include all the sections outlined below in the exact same order in which their sub-headings are listed.

When you write your paper, include the name of each sub-heading to denote where each section begins, except for the *Heading* and *Title*.

**Only the following sections contribute to the total word count:** *Interpretation, Analysis, Evaluation, Inference and Explanation*. Include these sections’ total word count in their respective sub-headings.

**1. Heading**

Include the following information at the top of your paper:

* Your name
* Student ID #
* Name of your T.A.; Recitation time & day
* Question#; Total word count

**2. Title**

Always title your paper with either a declaratory statement, or a question. For example, your broad topic is “Wind Energy.” Your title could be “*The Future is Blowin’ in the Wind*,” or “*Wind Generated Energy is too Chancy*,” or “*Why is Wind Generated Electricity the Fastest Growing of all Renewable Sources*?”

*Condensed to its bones*: Be creative but ensure that your Title is reflective of the topic.

**3. Interpretation**

This is the introduction to your paper’s topic. The goal of this section is to convey to your audience the significance of your topic and how your paper will clarify and elucidate the issue. It might be helpful to attempt to write this section by concisely: a) stating your position and b) introducing your supporting claims for this position.

*Condensed to its bones*: This is a thesis statement. Be direct and very specific.

**4. Analysis**

At 400-450 words, this is the longest section of your CT paper. It is important to be concise here and that all the content in this section directly supports your thesis statement. In other words, ensure the arguments made here tie back to the position stated in the *Interpretation*.

To write this section, it is helpful to think of two or three supporting arguments for your thesis statement, and then expand on each of these here. Be sure to provide logical transitions from one idea to the next, elucidating your train of thought, if necessary. It will be assumed by the reader that the arguments presented are judged to be valid, meaning that it is crucial to provide *facts* with accompanying explanations as to how *and* why those facts support your main argument.

*Condensed to its bones*: Do your research and organize your thoughts clearly – include only relevant *facts* that support your specific argument. You will want to restate your position and expand on each of the supporting claims that you stated in the interpretation. It helps to dedicate a separate paragraph to each supporting claim.

**5. Evaluation**

This section provides an opportunity to critically examine the facts and/or arguments used by the authors of your primary sources. Here, you will need to identify bias in the arguments of at least two of the sources that you used (be very explicit, tell us which of the authors you are evaluating). To do this, you will want to point out any *limitations* (or biases)that might exist in the studies, experiments, or statistical analyses carried out by the authors, and the effects these may have on their findings and conclusions. It is not sufficient to write that the sources were all taken from academic journals and are therefore valid, they may still have some limitations.

*Condensed to its bones:* It helps to think of “bias” here as the *limitations the author might bring to the publication*. Example: you are citing a piece concerning the environmental impacts of bottled water and the author is funded by a private entity such as Coca Cola, note their conflict of interest. Example: an author is making broad inferences based on a study that used a limited dataset, you may want to think about its ability to make more general conclusions.

**6. Inference**

The intent of this sub-heading is to highlight for the reader how the specific issue has broader consequences. It may be helpful to think in terms of scales; if your issue is on a local scale, what might the effects be on a national, international, or global scale? Essays concerning natural effects might be extrapolated to the human population or vice versa.

*Condensed to its bones:* Expand your topic to include its significance/impact on the broader scale, or if you are speaking of a global issue, expand on how this issue concerns the local scale. (Be very specific here.)

**7. Explanation**

The explanation is analogous to a concluding sentence. Here, you will essentially want to restate your argument, briefly summarize the findings that support your point of view, and concisely speculate on the broader effects of the topic.

*Condensed to its bones:*This is a conclusion statement; it may be seen as a reiteration or reinforcement of the position stated in the *Interpretation*.

**8. Bibliography**

All sources in the *Bibliography* must be listed in APA format only. Furthermore, all entries must be listed in alphabetical order.

**Format structure for citing a journal article in print in APA format:**

First author last name, First author first initial., & Second author last name, Second author first initial**.** (Publication *year*)**.** Article title**.** *Periodical Title italicized***,** *Periodical volume italicized*(Issue # in parentheses)**,** Article page range.

APA citation format examples for journal articles:

Baldi, G., Houspanossian, J., Murray, F., Rosales, A. A., Rueda, C.V., & Jobbágy, E.G. (2014). Cultivating the Dry Forests of South America: Diversity of Land Users and Imprints on Ecosystem Functioning. *Journal of Arid Environments, 123*, 1-13.

Romero-Ruiz, M. H., Flantua, S. G. A., Tansey, K., & Berrio, J.C. (2012). Landscape transformations in savannas of northern South America: Land use/cover changes since 1987 in the Llanos Orientales of Colombia. *Applied Geography, 32* (2), 766-776.

**Format structure for citing a book in APA format:**

Author last name, First Initial. (Year of Publication). Title of work. Publisher City, State: Publisher.

APA citation format example for a book:

Inkpen, R., & Wilson, G. (2013). *Science, Philosophy and Physical Geography.* New York, NY: Routledge.

For more information on this (as well as to learn how to list other types of sources, such as a website), please refer to the **APA Citation Guide** of the BibMe™ website: <http://www.bibme.org/citation-guide/apa/>

# Acceptable Sources to Write the CT Papers: Peer-reviewed Publications

🡪 **To avoid a paper score of zero, you must cite (and include in the Bibliography) a minimum of four relevant peer-reviewed sources published in the last ten years in the text of your CT paper.**

**Peer-reviewed publications\*** are written by experts and are reviewed by several other experts in the field of study before the publication is published. For this reason, peer-reviewed publications are more likely to be scientifically valid and to reach verifiable conclusions ([ASU Library Services 2017](http://www.angelo.edu/services/library/handouts/peerrev.php)). In other words, using peer-reviewed publications ensures that the information from a publication is legitimate, accurate, and (as much as possible) unbiased.

\**For further clarification on this, please review the section called “A Guide to Peer-Reviewed Sources” on page 6 of this document.*

You may use sources that do not meet this criterion (such as non-peer-reviewed sources and/or sources published more than ten years ago), but *only in addition* to the four required primary sources. (Note: There is no need to distinguish between peer-reviewed and non-peer-reviewed sources in the *Bibliography*.)

## Citing your Sources

Every quote, fact, or idea taken from a source must be cited. 🡪 **To avoid a paper score of zero, only use the following in-text citations format:** (Author(s) last name(s) publication year, pg. #).

Example: **(Friedman 2008, page 16).**

* For web-based sources without page numbers (i.e. websites), use the paragraph number.
* Citations must go after the cited information (at the end of the relevant sentence), but another way to cite something could be: “According to Friedman (2008, page 16) ...”
* Direct quotes must *always* be in quotation marks.

# Other Considerations to Keep in Mind

**Selecting a Topic**

Based on a different digit off your student ID number, you will be given a selection of topics to choose from for each of the CT papers (the details of this can be found on the class “Critical Thinking Papers” link). Once you select a topic, you have the liberty to decide how you will approach the topic (the direction of your argument), but **you must write your paper on a topic from the list assigned to the specific digit from your student ID number; no exceptions.**

**Word Count**

Once again, **only the following sections contribute to the total word count:** *Interpretation, Analysis, Evaluation, Inference and Explanation*. The total word count of these sections must be **between 500 and 550 words**, with the ***Analysis* being between 400-450 words**. Depending on the word count of the *Analysis,* the word count of the other sections must be 100-150 words.

* Include these five sections’ total word count in their respective sub-headings.
* You can count the headings of each section and the in-text citations in your final word count or not; this is your choice, just please be consistent throughout the entire paper.

**Writing Style**

* **Do not write in the first or second person.** First person is the I/we perspective. Second person is the “you” perspective.
* **Do not use contractions,** i.e.: don’t; isn’t; won’t. Instead use: do not; is not; will not.
* **Make your paper creative and unique.** Each T.A. reads many, many papers; make yours stand out.
* **Proof-read your paper**. Go to the OSU Writing and Learning Center, or at least have a friend look it over. "A" papers do not have grammatical and spelling errors.
* **Use acronyms appropriately.** For example, the first time you use the name of something, you should not just write “ASPCA,” you would have to write it as “American Society for Prevention of Cruelty to Animals (ASPCA).” After that, further references can be written as “ASPCA” only.
* **Do not use very long or stand-alone quotes.** Quotes should always be a part of a sentence that you have constructed. Most of the time, quotes should be rephrased in your own words and then cited.

**The “Acknowledgement of CT Paper Requirements” Sheet**

Review and type your initials on each line to show that you understand the minimum requirements of the CT papers (*see page 9*). Submit this sheet with each paper.

* **There will be a 15% deduction of your grade if the requirements sheet is missing**.
* A 5% deduction if the requirements sheet is not initialed where required.

**Wow Factor**

The “Wow factor” is worth 10% of your grade in CT 2 and CT 3. Here, you are being evaluated on the overall quality of your paper, but also on your ability to follow instructions.

# Guide to Peer-Reviewed Sources

***Reminder:*** In the Analysis section of the CT papers, you must cite at least 4 relevant sources that are peer-reviewed (listed in green below) *and* that were published in the last 10 years. Failing to do this will result in a paper score of zero.

W**hat classifies as a peer-reviewed publication?**

* **Articles from peer-reviewed (or scholarly) journals.** For more information on this, check out this link: [Differences between Scholarly Journals, Popular Magazines & Trade Publications](https://library.sdsu.edu/reference/news/what-does-peer-review-mean)
* **Books (or text-books)** may or may not count as peer-reviewed publications, this depends on the publisher of the book. Some publishers require that the content of the books they publish is reviewed by a board of scholarly reviewers in the subject area of the book, as some don't require this at all. However, *in this class all* books will be considered peer-reviewed sources.

**What does NOT classify as a peer-reviewed source?**

* **"Newspapers and magazines**. Articles are written by reporters who may or may not be experts in the field of the article. Consequently, articles may contain incorrect information" ([ASU Library Services 2017](http://www.angelo.edu/services/library/handouts/peerrev.php)).
* **"Journals containing articles written by academics and/or professionals.** Although the articles are written by “experts,” any particular “expert” may have some ideas that are really “out there!” ([ASU Library Services 2017](http://www.angelo.edu/services/library/handouts/peerrev.php)).
	+ {Examples: National Geographic, New York Times, The Economist, etc.}
* **Websites.** It does not matter if the website ends in .com, .org, .gov, .whatever – information on websites is not peer-reviewed*.* It may be fact-checked and reliable information, but it does not mean it underwent the peer-reviewed process. The information could be coming from a prestigious NGO (ex: WWF, GreenPeace, Survival International, etc), and it may be highly accurate, but it does not mean it is peer-reviewed.
* **Dissertations, theses, industry reports, NGO reports.** These types of sources are often referred to as **"grey literature."** Again, these documents could contain valuable and reliable information, but they do not undergo the peer-reviewed process.
* **Blogs.** Some prestigious scholars might be great bloggers but blogs are not peer-reviewed. You can get ideas and inspirations from these, but *do not cite* them in a scholarly paper.
* **Government reports or publications**. These could be peer-reviewed, but this is not always the case and it varies by country. For this reason, it’s best to not assume that they are not.

Note: You can cite sources that do not meet these criteria (listed in red below), but these can only be used as ***secondary sources, and in addition to the four primary sources.***

## How to Find Peer-Reviewed Journal Articles through the OSU Library Website

This is how the OSU Library explains how to identify a peer-reviewed journal: "Peer-reviewed journals can be identified in several different ways: (1) Journals identify themselves as peer-reviewed (in the small print describing who they are in each issue, or on the publisher's website about the journal). (2) You can also do a search in several databases such as Academic Search Premier and limit your results to "Scholarly" or "peer-reviewed."

**To find peer-reviewed publications in the OSU Library website:**

1. Go to <http://osulibrary.oregonstate.edu/>
2. Type some key words related to the topic you are researching.

It helps to play around with this, as you will get different results if you change some of these words. For example, you can type “sustainability of electric cars”, then try something like “benefits of electric vehicles”, or “disadvantages of electric cars”, etc.

1. **IMPORTANT**: Once you are on the page showing the results of your search, **make sure you click on “Peer-reviewed Journals”**, located to the right, under “Refine my results” (as shown by the red arrow below).
2. After you click on that, **click on “APPLY FILTERS.”** This will ensure that all the search results you get classify as “peer-reviewed” sources.



**Alternative Search Engines**

You can use other search engines and databases if you wish. Google Scholar is a popularly used tool for finding peer-reviewed journal articles, but you must be careful when using it, as this database is not as clear about the quality of the results from your search (as the OSU Library website can be). If you are not sure you can tell the whether a source you found though Google Scholar is peer-reviewed, then do not use as a primary source or double check that it is before doing so. (You can use the OSU Library to do this; copy and paste the title of the publication and check that it comes up as being peer-reviewed on the OSU Library website.)

**IMPORTANT:** If you are not certain whether a source you want to use is peer-reviewed or not, please contact your T.A. and have them approve (or disapprove) of the source *before* you submit your CT paper.

# CT 1 Grade Sheet

***Logistics (10%)***

Your name \_\_\_ / 1%

Your ID # \_\_\_ / 1%

Class day & time \_\_\_ / 1%

TA name \_\_\_ / 1%

Question # \_\_\_ / 1%

Word count \_\_\_ / 2.5%

Paper title \_\_\_ / 2.5%

***Content (60%)***

Interpretation \_\_\_ / 10%

Analysis \_\_\_ / 35%

Evaluation \_\_\_ / 5%

Inference \_\_\_ / 5%

Explanation \_\_\_ / 5%

***Style/Format (30%)***

Grammar \_\_\_ / 15%

In-text citations \_\_\_ / 5%

Bibliography \_\_\_ / 10%

Words over/under −\_\_\_ %

Acknowledgement sheet (−15% if not included in paper) \_\_\_

Acknowledgement sheet (−5% if not initialed) \_\_\_

# CT 2 & 3 Grade Sheet

***Up to 10% off if absent:***

−1% Your name \_\_\_

−1% Your ID # \_\_\_

−1% Class day & time \_\_\_

−1% TA name \_\_\_

−1% Question # \_\_\_

−2.5% Word count \_\_\_

−2.5% Paper title \_\_\_

***Content (65%)***

Interpretation \_\_\_ / 5%

Analysis \_\_\_ / 45%

Evaluation \_\_\_ / 5%

Inference \_\_\_ / 5%

Explanation \_\_\_ / 5%

***Wow Factor (10%)***

Wow factor \_\_\_ / 10%

***Style/Format (25%)***

Grammar \_\_\_ / 15%

In-text citations \_\_\_ / 5%

Bibliography \_\_\_ / 5%

Words over/under −\_\_\_ %

Acknowledgement sheet (−15% if not included in paper) \_\_\_

Acknowledgement sheet (−5% if not initialed) \_\_\_

# Acknowledgement of CT Paper Requirements

**Note: There are 3 ways to guarantee yourself a zero score on a CT paper. Type your initials on the lines below to indicate that you understand these minimum requirements. Attach this sheet at the end of each CT paper.**

1. \_\_\_\_\_ I used four peer-reviewed sources published in the last ten years – including books, peer-reviewed journals, or sources approved *in advance* by my T.A. – as primary sources to write this paper.
2. \_\_\_\_\_ I cited all four of my primary sources (using the required in-text citations format) in my paper.
3. \_\_\_\_\_ I used the required format for the CT papers (i.e. “Interpretation,” “Analysis,” etc.).
4. \_\_\_\_\_ ***I understand that failure to meet the above three requirements will result in a zero score on my paper.***
5. \_\_\_\_\_ In addition, I understand that if my “*Analysis*” section is outside the 400-450 required word range, *or* if my total word count is outside the 500-550 required word range, I will lose 1 point for each word over or under the required number of words.