

## Assignment 1: Argumentative Analysis (200 points)

**Objective: Develop your ideas about the roles of population growth, urbanization, technology, and globalization in shaping planetary processes and systems.**

Submit this assignment on Canvas under Assignment 1: Argumentative Analysis as a single-spaced Word document. Title the document YourLastName\_Argument. All assignments are due by 5:00 PM on Friday of the week indicated at the course website.

There are two basic types of analyses, explanatory and argument. An **explanatory analysis** provides a thorough, well-organized discussion of a topic. The purpose of an explanatory analysis is to provide the reader with a good understanding of the range of perspectives, explanations, viewpoints, kinds of research, research results, etc. about a topic. The purpose of the **argumentative analysis**, on the other hand, is for you to present your own point of view, supported by relevant facts published in reliable sources. An argumentative analysis has a thesis that is debatable – that is, someone equally knowledgeable as the writer and using the same information could disagree with the writer’s thesis and other experts could develop different, even opposing theses. In this assignment, you must develop an argumentative analysis. I strongly encourage you to read the following materials at the Purdue University On-Line Writing Lab. [Argumentative Essays](#) (the components of an argumentative essay

We have examined a number of perspectives about the role of population growth, urbanization, globalization and technological change on geophysical, biological and social systems. We then explored the idea that the combined effects of all of these processes has become planetary in scope, leading to global dominance of planetary systems and processes and the emergence of a new geologic era, the Anthropocene. While the “start date” and “key event” of the Anthropocene remain hotly debated (see Ruddiman, for example), a majority of geoscientists agree that human activities are having geologically significant impacts on the planet (e.g., impacts that will persist for very long periods of time, even if the activity ends in the very near future). Therefore, for the purposes of this assignment, we will take the idea of an Anthropocene Era as a valid one.

Your task in this assignment is to develop and support a thesis about the relative importance of population growth, urbanization, technology, or globalization as **the critical driver of the Anthropocene**. Your analysis should clearly argue for a pre-eminent role for **one** of these highly interrelated processes and, more specifically, **identify one or a few aspects** of the phenomenon that are critical to the onset of human planetary transformations. Use the required readings, additional materials, and materials that you find on your own to complete this assignment. Here are the required components for this assignment.

**1. State a thesis.** A thesis is a clear, unambiguous statement of your position with regard to a topic. The thesis **cannot** be a simple statement like “Population is the key driver of the Anthropocene Era.” It should be a substantive statement that shows that you have examined each of the four processes we have discussed in enough depth to formulate your own ideas about which specific aspects of one of these processes is critical to the onset of the Anthropocene Era. For example, my thesis might be that the development of technologies that permitted large-scale transformation of natural systems, such as mechanical land clearing, is the single most important driver of the Anthropocene Era. E.g., be specific. You may identify more than one specific aspect of the impact, but this should not be a compilation of a long list of potential critical impacts. Rather, you need to demonstrate that you have thought carefully about

which specific components of a general process like globalization you think are critical to the onset of the Anthropocene. Good theses have four traits. They are concise, clear, specific, and arguable. *Concise* means the thesis is short, ideally one sentence. Clear means easy to understand. *Specific* means the thesis deals with a narrow and focused argument – as explained, not “population growth” in general but specific aspects of human population growth. *Arguable* means that someone else with access to the same information you have could disagree with you. E.g., your thesis is not just a statement of generally accepted fact. It is instead a carefully crafted conclusion that you have reached based on (in this course) scientifically accepted evidence.

**2. Develop several (more than three) arguments to support your thesis.** Arguments include **evidence** offered in support of your thesis **and** an explanation of the **logical connections** between the evidence and your thesis. You must draw upon published research reports, research reviews, and analytic pieces to develop the basis of your arguments (evidence and logical linkages). Call on a broad body of evidence that is relevant to your thesis. I really hate to give numbers, but I would suggest that your analysis should be based on a minimum of 20 publications (including the required readings). We are discussing a complex set of phenomena in this course, and when and why the Anthropocene started is subject to great uncertainty and large gaps in our knowledge base. I believe that 20 is the **minimum** number of sources of information and ideas that you can consult and hope to come to a robust thesis that shows sophistication in your thinking. You may well need more than 20. These should include be publications **other than** the required readings for this class. Use APA format for all references. When you refer to or use ideas from a reference in the body of your essay, make sure to site the source using APA citation style (requires page number).

**3. Identify weaknesses in the body of evidence or train of logic (premises) that could undermine your arguments.** The ideas we are discussing in this class rest upon incomplete evidence in almost every case. For example, very reputable scientists disagree about whether the Anthropocene is a very recent phenomena or, on the contrary, whether it started long ago. The evidence is insufficient to establish the time of onset. My thesis that the development of technology that permits large-scale landscape transformation is based on the premise that the Anthropocene is of recent origin. This is a weakness in my argument. Do not be overly critical of your own ideas, but do be honest about the weaknesses.

**4. Identify the strongest counter-arguments to your own and explain why you reject them.** You do not have to walk through every possible counter-argument, but be fair in presenting the strongest of the counter-arguments. For example, a strong counter-argument to my thesis is that there is a growing body of evidence that pre-industrial societies in Central and South America produced discernible landscape level changes despite not having mechanical technology of any sort. It seems as though these landscape level changes resulted from repeated small scale landscape changes that created a cumulative “large scale” effect.

**5. Develop a 500 word summary of your analysis. Post it to the discussion board for the week of February 16 prior to class. We will share these summaries briefly in class.**

I use a grading rubric for assignments that indicates characteristics of responses that range from excellent to unacceptable. The table immediately below provides the characteristics that I will use to assess the quality of the arguments you present in Assignment 1 – e.g., one component in the grade on the assignment. I give a score poor, satisfactory, or excellent to your responses. I have a rubric like this for every component of every assignment. I do not include all this in the syllabus to conserve room. But I thought you should see an example of the actual

rubric. In the syllabus, I provide only the standards that you need to meet to receive the full 200 points for each assignment. The criteria listed in the table entitled “**Grading Criteria Assignment 1: Argumentative Analysis**” on the next page are the criteria that you need to meet to receive the full (200) points for this assignment.

Excellent	<p>Several arguments are offered and sequence of arguments is logical so that arguments build on each other in some way (e.g., simple to complex, related points, etc.)</p> <p>One argument is presented in each paragraph and paragraphs are internally well-organized – lead sentence states argument, followed by supporting or explanatory sentences and ending with a concluding or summary sentence</p> <p>Writer provides relevant evidence from the published literature to support each argument and cites the source of the evidence</p> <p>Writer clearly explains how the argument supports the thesis and addresses how the arguments build on key concepts about the Anthropocene, population growth, urbanization, technological development &amp; globalization</p>
Satisfactory	<p>Few arguments are offered and/or sequence of arguments is not always consistent and logical</p> <p>More than one argument is presented in each paragraph and/or the argument being made is not clear or is poorly organized</p> <p>Writer provides relevant evidence from the published literature to support some arguments and cites the source of the evidence, but evidence relies primarily on a single resource</p> <p>Writer’s explanation of how the argument supports the thesis is weak or confusing and fails to incorporate key ideas about the Anthropocene, population growth, urbanization, technology and globalization</p>
Poor	<p>Few arguments are offered and sequence of arguments is not logical</p> <p>Writer provides little or no relevant evidence from the published literature to support arguments</p> <p>Writer does not explain how the argument supports the thesis and does not tie arguments to key concepts about the Anthropocene, population growth, urbanization and globalization</p>

**Grading Criteria Assignment 1: Argumentative Analysis**

Criteria	Possible Points	Your Points
<p><b>Quality of the Thesis</b></p> <p>Unambiguously states the writer’s position</p> <p>The position is arguable (is not simply a statement of accepted fact)</p> <p>Is concise and clear, a statement of the role of a specific component of aspect of population growth, urbanization, technological development or globalization (not overly general)</p> <p>Thesis reflects a thorough understanding of key concepts discussed in this class</p> <p>Demonstrates that the study has synthesized the information presented in the first four weeks of class by comparing and contrasting ideas and evidence from several of the topics, not just one (e.g., synthesize information about population growth and urbanization)</p>	40	
<b>Quality of the Arguments</b>	60	

<p>Several arguments are offered and sequence of arguments is logical so that arguments build on each other in some way (e.g., simple to complex, related points, etc.)</p> <p>One argument is presented in each paragraph and paragraphs are internally well-organized – lead sentence states argument, followed by supporting or explanatory sentences and ending with a concluding or summary sentence</p> <p>Writer provides relevant evidence from the published literature to support each argument and cites the source of the evidence</p> <p>Writer clearly explains how the argument supports the thesis and addresses how the arguments build on key concepts about the Anthropocene, population growth, urbanization, technological development &amp; globalization</p>		
<p><b>Weaknesses in Arguments and Counter Arguments</b></p> <p>Identification of weaknesses demonstrates that the student has gone beyond simply looking for evidence to support his/her arguments to examine the full range of evidence in support of and contrary to his/her arguments and thesis</p> <p>Can identify weaknesses in the underlying premises of his/her arguments (logical fallacies or inadequate assumptions)</p> <p>Identified specific counter-arguments that are <b>relevant to the validity of his/her thesis only</b> (e.g., did not simply search out other ideas in general)</p>	50	
<p><b>Use &amp; Mastery of the Literature</b></p> <p>Writer exhibits mastery of concepts in the required readings for this course and can apply those concepts to the development of logical arguments</p> <p>Writer draws upon extensive relevant published literature beyond the required readings for this course to develop arguments and conclusions</p> <p>Writer draws upon literature from a number of perspectives, disciplines and viewpoints, including competing assessments of the role and impacts of the, population growth, urbanization, technological development and globalization on sustainability</p> <p>Writer correctly cites and references all literature used</p> <p>Writer makes clear how the concepts or information in the literature was used in the essay – does not just “toss in” citations</p>	40	
<b>Followed all instructions; correct use of APA style</b>	10	
<b>TOTAL</b>	<b>200</b>	