EARTH 111, Spring 2020 **FINAL EXAM** (yikes!)

# DUE in Canvas on Wednesday, May 6, at 11PM

Let’s go back and take another look at our Overarching Course Goal

**Overarching Course Goal** -- Students will be able to summarize the individual components and analyze the integrated contributions (natural environment, human activities, and policy) that define the complexities of Earth’s hydrosphere, focusing on freshwater systems

And one of our Secondary Course Objectives

* Articulate scientific and societal arguments for why water matters, including a self-reflection on your own attitudes and beliefs

This semester, we’ve covered some of the fundamentals of water science. We’ve explored water events and issues that have occurred in recent years with our current event news stories we’ve placed in Google Earth. We’ve learned more about scientists and their work, and the role they play in helping us understand and advance water science. We’ve discussed communities and populations that have been impacted in ways that are not always equal.

We’ve learned about challenges in the hydrosphere and explored some of the solutions to those challenges. I want this final exam to focus even more on the solutions – on

what we’ll call “**Water Optimism**.”

What do I mean by Water Optimism? We certainly cannot deny the natural and the human-caused challenges to water and within our water systems, but we also must recognize that the biosphere (specifically the anthrosph ere part) is able to adapt to these changing conditions and be resilient. We look at the challenges yet work towards solutions for the benefit of our environment and for society.

This final exam is your opportunity to show that you understand the scope of what you have learned throughout the semester. You will be able to think about which topics you made a strong personal connection to and how science/scientists and society connect to those topics. This writing assignment allows you to communicate the what, the why, and the how – all based in opinion validated by cited work from credible, reliable sources.

**Step One** for this final exam is to find 3 articles from the past 5 years that address **solutions** to water challenges. These cannot be articles you used in your Google Earth ePortfolio – you can use any of the sources listed on our course LibGuide to find your articles, but the articles must be new ones you haven’t read before. Make sure the articles are not opinion pieces and stand up to the credibility review that Annie Jansen showed us when we did the APPLY test. You will use these three new articles and your

textbook as the foundation for your final exam – but you can still incorporate other information you learned this semester.

**Step Two** is to write an 800-1,000 word essay on Water Optimism. These are the components to include in your essay (do not answer these as individual questions – write this as an essay, with paragraphs):

* Why it is necessary to have hope as it relates to the Earth system of the hydrosphere? (especially freshwater) Comment why we need water and its uses.
* What are some examples of what scientists study as it relates to water? And what do scientists do with this water knowledge?
* What are some solutions being put in place (or planned) for solving some of the challenges in our freshwater systems? (\*this is where your three n ew articles come in)
* Your textbook states that overall, one of the most important “sources” of water is conservation – for individuals, households, businesses and corporations, cities, etc. Discuss the concept of water conservation for these various groups.
* What gives you hope that we can achieve/maintain a clean and sustainable water system? (so what gives you Water Optimism)

**Step Three** is to include an APA-formatted Reference list at the end of your essay of the three new articles you just found in Step One and any additional sources you may have used, like your textbook.

**Step Four** is to submit by the deadline listed at the beginning of this document – and that’s it! (well, that’s it for EARTH 111, but not for our hydrosphere, of course….)



**Grading outline for final exam**

Everyone will start out with a score of “3” in each category. From there I will determine if the response is not up to college-level expectations or lacking information and a complete thought (can be lowered down to a 1 or 0), or if you greatly exceed expectations and did a really thorough job that “knocked my socks off” (up to a 5).

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| A clear description of the “what” and “why” of water optimism | 0 1 2 3 4 5 |
| A clear description of scientists studying water/sharing | 0 1 2 3 4 5 |
| A clear description of water solutions/conservation | 0 1 2 3 4 5 |
| A clear description of what gives you water optimism | 0 1 2 3 4 5 |

Included at least 3 citations, correct APA format, quality sources 0 1 2 3 4 5

# Total exam grade is based out of 25 points

