***For this assignment you will develop a testable hypothesis and design a study to test that hypothesis.***

* *Develop a testable hypothesis about an aspect of one of the following topics that is of interest to you, using the resources introduced in those class sessions:*
  + *Self-directed learning (from ACCT)*
  + *How can we avoid global pandemics? (from Deriving Insights)*
    - *Here is an article(https://drive.google.com/file/d/1wSjEznUT3R-MgbEYkM98TuI3U5WPJ-t9/view) that may serve as a starting point. Please note that you are not required to use this article although you may find it helpful.*
  + *How do humans impact evolution? (from Deriving Insights)*
    - *Here is an article(https://drive.google.com/file/d/18NES2f6GGTfS1TkftIxY6tz9Ny6bc2It/view) that may give you a start. Please note that you are not required to use this article although you may find it helpful.*
* *Design a study that will test your hypothesis. Use one of the study designs we have discussed in class, choosing the one that will best test the hypothesis. Do not propose to use interviews or surveys, which we have not yet covered.*
* *Your final written assignment should include:*
  + *An outline and brief narrative description of your study design****using the template below****.*
  + *As part of the narrative description, an explanation of exactly:*
    - *how the study would be conducted*
    - *how it would minimize bias*
    - *which confounding variables should be considered*
    - *why the research design you chose will test your hypothesis more effectively than would the other types of designs discussed in class.*
* *Your total word count at the end of the assignment.*

***Final notes****:*

* *The LOs listed below are those targeted by this assignment. Use all LOs that are appropriate based on the study design you choose. Explicitly discuss how your study design minimizes at least one of the biases you learned in ACCT.*
* *Be sure to draw attention to your most prominent applications of LOs (especially those mentioned in the “LOs to be graded” section below) by adding footnotes. In the footnote text (at the bottom of the page), provide the hashtag of the LO and a 1-2 sentence explanation of your application. Help the professor understand exactly why this constitutes a strong application. Footnote text does not count toward the target length of the assignment, and all applications of the LO (not just those that are footnoted) will count toward your grade.*

***Study Design Template***

* *Background summary: [Summary of the problem to be investigated and the background information motivating it. This summary should include citations of reliable sources, not your personal opinion. approximately 100 words ]*
* *Hypothesis:*
* *Outline of research Design: [Note: For this outline you may use bullet points instead of full sentences. Add or subtract items as appropriate for your study; approximately 200 words]*
  + *Type of research design: [interventional study (e.g., RCT, quasi-experiment) or observational study (e.g., case-control study, cross-sectional study)]*
  + *Treatment(s)(if applicable):*
  + *Independent variable(s):*
  + *Dependent variable(s):*
  + *Control(s):*
  + *Potential confounding variable(s):*
* *Narrative Description: [In full sentences, explain and justify the study design you outlined above, including why the study design you chose better tests your hypothesis than other designs and how the design minimizes bias and confounds; approximately 750 words]*
* *Conclusion: [Succinctly summarize your potential results, their importance, and future research directions; approximately 100 words]*