

Credit Hours: 1

Contact Hours: This is a 3-credit course, offered in accelerated format. This means that 16 weeks of material is covered in 8 weeks. The exact number of hours per week that you can expect to spend on each course will vary based upon the weekly coursework, as well as your study style and preferences. You should plan to spend 14-20 hours per week in each course reading material, interacting on the discussion boards, writing papers, completing projects, and doing research.

COURSE DESCRIPTION AND OUTCOMES

Course Description:

This course fulfills a general education natural science lab requirement and serves as an optional lab to accompany BIO 121. This course provides a practical introduction to the scientific method and its application to questions about the natural world. Basic principles of ecology and current issues relating to the use of natural resources and environmental problems are discussed. Not an approved Colorado gtPathways course.

Course Overview:

In this course, students will explore the scientific method and its use in examining the natural world. Hands-on application of biological, chemical, and physical principles will facilitate a deeper understanding of ecological principles and the affect humans have on the environment. Students will reflect on and discuss several environmental topics, including pollution, habitat loss, biodiversity, population growth, ecological footprints, and climate change. Students will observe the application of the scientific principles of sustainability at the individual, community, and industrial levels.

Course Learning Outcomes:

1. Explore interactions and interrelationships among the components of populations, communities and ecosystems through experiential learning activities.
2. Demonstrate the development of personal awareness of the relationships that students have with the natural world.
3. Evaluate experimental results, analyze data, and explain how the students' observations relate to their understanding of environmental principles.

COLORADO GTPATHWAYS COURSE

Colorado Guaranteed Transfer (GT) Pathways Course: The Colorado Commission on Higher Education has approved BIO121L: Environmental Conservation Lab for inclusion in the Guaranteed Transfer (GT) Pathways program in the **GT-SC1** category. For transferring students, successful completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category. For more information on the GT Pathways program, go to <http://highered.colorado.gov/academics/transfers/gtpathways/curriculum.html>

The table in **Appendix A** details the specific alignment of Course Learning Outcomes and Assessments to gtPathways Content and Criteria requirements.

PARTICIPATION & ATTENDANCE

Prompt and consistent attendance in your online courses is essential for your success at CSU-Global Campus. Failure to verify your attendance within the first 7 days of this course may result in your withdrawal. If for some reason you would like to drop a course, please contact your advisor.

Online classes have deadlines, assignments, and participation requirements just like on-campus classes. Budget your time carefully and keep an open line of communication with your instructor. If you are having technical problems, problems with your assignments, or other problems that are impeding your progress, let your instructor know as soon as possible.

COURSE MATERIALS

Textbook Information is located in the CSU-Global Booklist on the Student Portal.

COURSE SCHEDULE

Due Dates

The Academic Week at CSU-Global begins on Monday and ends the following Sunday.

- **Discussion Boards:** The original post must be completed by Thursday at 11:59 p.m. MT and Peer Responses posted by Sunday 11:59 p.m. MT. Late posts may not be awarded points.
- **Critical Thinking:** Assignments are due Sunday at 11:59 p.m. MT.

WEEKLY READING AND ASSIGNMENT DETAILS

Module 1

Readings

- Daskin, J.H., Stalmans, M., & Pringle, R.M. (2016). Ecological legacies of civil war: 35-year increase in savanna tree cover following wholesale large-mammal declines. *Journal of Ecology*, 104, p.79-89. Retrieved from https://pringle.princeton.edu/files/2014/01/2015_Daskin-et-al.-Journal-of-Ecology1.pdf
- Keesing, F., & Young, T.P. (2014). Cascading consequences of the loss of large mammals in an African savanna. *BioScience*, 64(6), p.487-495. Retrieved from <http://bioscience.oxfordjournals.org/content/64/6/487.full.pdf+html>

Discussion (25 points)

Critical Thinking (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Scientific Inquiry Using WildCam Gorongosa

Gorongosa National Park is a 1,570-square mile protected area in Mozambique. Lion researcher Paola Bouley and her team use motion-detecting trail cameras to learn more about Gorongosa's lions. Lions are not the only animal captured by these cameras. The photos provide valuable information on a variety of different animals, including numbers to help estimate populations, behaviors, and interactions with other animals. The public has identified animals and collected data

from the photos on a citizen science website called WildCam Gorongosa (www.wildcamgorongosa.org). The WildCam Lab is a part of WildCam Gorongosa where you can view trail camera data on a map, and filter and download the data to investigate scientific questions.

The process of science, termed the scientific method, is iterative and adaptable.

1. The first step in scientific inquiry typically consists of *making observations* about the natural world. Observations can inspire questions about phenomena, to gain understanding about how nature works. For scientists to answer a question, it must be testable, meaning that it could be answered by designing an experiment and/or collecting data.
2. After identifying a testable question, the scientist may form a hypothesis, which is an explanation for the observed phenomenon, based on observations and/or prior scientific knowledge.
3. Before collecting data, the scientist may also predict the expected results of the investigation if the hypothesis is supported.
4. The scientist can test the hypothesis through experimentation or further observation.
5. Finally, the scientist completes an analysis of the data collected.

In this activity, you will learn firsthand what it is like to be an ecologist studying Gorongosa's wildlife. You will use actual trail camera data to generate a testable question, form a hypothesis and prediction, and choose and analyze the appropriate data to answer your question from the WildCam Lab. The results of your investigation may contribute to the conservation effort in Gorongosa National Park.

The above text is taken nearly verbatim from *Student Worksheet*, which can be downloaded from <http://www.hhmi.org/biointeractive/scientific-inquiry-using-wildcam-gorongosa>. You should also click on and review the Excel Tutorial (XLS). Complete this worksheet, either as a Word DOCX file, in the pdf file using PDF editing tools, or as a print out. You may need to scan in the worksheet if you print it out. Please submit it in the **Module 1 Folder**.

Option #2: Scientific Inquiry Presentation Using WildCam Gorongosa

Gorongosa National Park is a 1,570-square mile protected area in Mozambique. Lion researcher Paola Bouley and her team use motion-detecting trail cameras to learn more about Gorongosa's lions. Lions are not the only animal captured by these cameras. The photos provide valuable information on a variety of different animals, including numbers to help estimate populations, behaviors, and interactions with other animals. The public has identified animals and collected data from the photos on a citizen science website called WildCam Gorongosa (www.wildcamgorongosa.org). The WildCam Lab is a part of WildCam Gorongosa where you can view trail camera data on a map, and filter and download the data to investigate scientific questions.

The process of science, termed the scientific method, is iterative and adaptable.

1. Instead of submitting the completed Student Worksheet, you are invited to adapt the worksheet content to create a PowerPoint presentation of 10 to 12 slides about the research project you carried out and what you learned. Slide subheadings should consist of the following: Introduction; Research Question; Hypothesis; Research Methods; Results; Discussion of Results; Conclusions; References. You are encouraged to include visuals to enhance your presentation. More than one slide may be necessary for a given subheading. Include a title slide and format presentation, including references and citations, following APA standards. The first step in scientific inquiry typically consists of *making observations* about the natural world. Observations can inspire questions about phenomena, to gain understanding about how nature works. For

- scientists to answer a question, it must be testable, meaning that it could be answered by designing an experiment and/or collecting data.
2. After identifying a testable question, the scientist may form a hypothesis, which is an explanation for the observed phenomenon, based on observations and/or prior scientific knowledge.
 3. Before collecting data, the scientist may also predict the expected results of the investigation if the hypothesis is supported.
 4. The scientist can test the hypothesis through experimentation or further observation.
 5. Finally, the scientist completes an analysis of the data collected.

In this activity, you will learn firsthand what it is like to be an ecologist studying Gorongosa's wildlife. You will use actual trail camera data to generate a testable question, form a hypothesis and prediction, and choose and analyze the appropriate data to answer your question from the WildCam Lab. The results of your investigation may contribute to the conservation effort in Gorongosa National Park.

The above text taken nearly verbatim from *Student Worksheet*, which can be downloaded from <http://www.hhmi.org/biointeractive/scientific-inquiry-using-wildcam-gorongosa>. Complete the worksheet and use the information to create your PowerPoint presentation, and submit it in the **Module 1 Folder**.

Module 2

Readings

- Aronson, M.F.J., et. al. (2014). A global analysis of the impacts of urbanization on bird and plant diversity reveals key anthropogenic drivers. *The Royal Society Publishing*, 281(1780). Retrieved from <http://rsps.royalsocietypublishing.org/content/281/1780/20133330> doi: 10.1098/rsps.2013.3330
- Steenweg, R., Hebblewhite, M., Gummer, D., Low, B., & Hunt, B. (2016). Assessing potential habitat and carrying capacity for reintroduction of Plains Bison (*bison bison bison*) in Banff National Park. *PLoS ONE* 11(2): e0150065. doi:10.1371/journal.pone.0150065. Retrieved from <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0150065>

Discussion (25 points)

Critical Thinking (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Population Ecology

In this laboratory exercise, we will explore the field of population ecology and survey factors involved in the decline, expansion, and maintenance of a population. Simulated growth of a population will be modeled, graphed, and analyzed. You will also use quantitative data from a cemetery population to study demographics.

Complete Hands-On Labs, Inc. Version 42-0281-00-02 (Environmental Science Lab Kit)

Requirements:

- Answer all questions in clear and complete sentences.
- Your paper must be formatted according to CSU-Global Guide to Writing and APA Requirements.
- If you need assistance with your writing style, start with the links under the Research Help and Writing Help tabs on the CSU-Global Library's homepage.

Option #2: Virtual Cemetery

In this laboratory exercise, we will explore the field of population ecology and survey factors involved in the decline, expansion, and maintenance of a population. Simulated growth of a population will be modeled, graphed, and analyzed. You will also use quantitative data from a cemetery population to study demographics.

Complete Hands-On Labs, Inc. Version 42-0281-00-02 (Environmental Science Lab Kit)

If you have limited mobility or limited access to a local cemetery, the Demographics portion of this week's lab can be conducted online by visiting a virtual cemetery. At <http://www.virtualgrave.eu/>, you can navigate past graves in the "outdoor" cemetery or in the catacombs. You can collect the same information that you would need to collect by visiting a local graveyard.

Requirements:

- Answer all questions in clear and complete sentences.
- Your paper must be formatted according to CSU-Global Guide to Writing and APA Requirements.
- If you need assistance with your writing style, start with the links under the Research Help and Writing Help tabs on the CSU-Global Library's homepage.

Module 3

Readings

- Hansen, J., & Sato, M. (2016). Regional climate change and national responsibilities. *Environmental Research Letters*, 11(3), 034009. Retrieved from <http://iopscience.iop.org/article/10.1088/1748-9326/11/3/034009/meta>
- Mann, M. E., & Gleick, P. H. (2015). Climate change and California drought in the 21st century. *Proceedings of the National Academy of Sciences*, 112(13), 3858-3859. Retrieved from <http://www.pnas.org/content/112/13/3858.full?version=meter+at+null&module=meter-Links&pgtype=article&contentId=&mediaId=&referrer=&priority=true&action=click&contentCollecti on=meter-links-click>

Discussion (25 points)

Critical Thinking (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Greenhouse Effect

Hands-On Labs, Inc. Version 42-0179-00-01 (Environmental Science Lab Kit)

In this laboratory exercise, we will learn about the greenhouse effect and climate change. We will also observe the effect of a greenhouse gas on temperature in a closed system. You will expose a glass jar filled with carbon dioxide to the heat of a desk lamp while monitoring and graphing the temperature changes over time and will then repeat the exercise with the jar filled with air. You will form hypotheses about expected results and analyze the experimental design of the exercise.

Requirements:

- Answer all questions in clear and complete sentences.
- Your paper must be formatted according to CSU-Global Guide to Writing and APA Requirements.

- If you need assistance with your writing style, start with the links under the Research Help and Writing Help tabs on the CSU-Global Library's homepage.
- Any relevant data tables, graphs, or calculations should also be included in the submission.

Option #2: Greenhouse Effect Video

Hands-On Labs, Inc. Version 42-0179-00-01 (Environmental Science Lab Kit)

In this laboratory exercise, we will learn about the greenhouse effect and climate change. We will also observe the effect of a greenhouse gas on temperature in a closed system. You will expose a glass jar filled with carbon dioxide to the heat of a desk lamp while monitoring and graphing the temperature changes over time and will then repeat the exercise with the jar filled with air. You will form hypotheses about expected results and analyze the experimental design of the exercise.

Instead of submitting the questions and answers in a Word document, you may choose to shoot a short (5- to 10-minute) video of yourself performing the lab activity, explaining the process and results. The graph required in Question 1 should be included in the video. You should then save this file to your computer, and submit it as you would any other Critical Thinking Assignment.

Module 4

Readings

- Katakwar, M. (2016). Narmada river water: Pollution and its impact on the human health. *IJCS*, 4(2), 66-70. Retrieved from <http://www.chemijournal.com/archives/2016/vol4issue2/PartB/4-2-20.pdf>
- Sinaga, D.M., Robson, M. G., Gasong, B., T., Halel, A. G., & Pertiwi, D. (2016). Fecal coliform bacteria and factors related to its growth at the Sekotong shallow wells (West Nusa Tenggara, Indonesia). *Public Health of Indonesia*, 2(2), 47-54. Retrieved from <http://stikbar.org/ycabpublisher/index.php/PHI/article/view/62/pdf>
- Whelton, A. J., McMillan, L., Connell, M., Kelley, K. M., Gill, J. P., White, K. D., ... & Novy, C. (2015). Residential tap water contamination following the Freedom Industries chemical spill: Perceptions, water quality, and health impacts. *Environmental Science & Technology*, 49(2), 813-823. Retrieved from <http://pubs.acs.org/doi/abs/10.1021/es5040969>

Discussion (25 points)

Critical Thinking (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Water Quality

Hands-On Labs, Inc. Version 42-0284-00-01 (Environmental Science Lab Kit)

In this laboratory exercise, you will learn about water pollution and how specific water quality indicators impact both human health and the environment. You will also test water samples for the following parameters: pH, nitrates, phosphates, and fecal coliform bacteria.

Requirements:

- Answer all questions in clear and complete sentences.
- Your paper must be formatted according to CSU-Global Guide to Writing and APA Requirements.
- If you need assistance with your writing style, start with the links under the Research Help and Writing Help tabs on the CSU-Global Library's homepage.

- Any relevant data tables, graphs, or calculations should also be included in the submission.

Option #2: Water Quality Video

Hands-On Labs, Inc. Version 42-0284-00-01 (Environmental Science Lab Kit)

In this laboratory exercise, you will learn about water pollution and how specific water quality indicators impact both human health and the environment. You will also test water samples for the following parameters: pH, nitrates, phosphates, and fecal coliform bacteria.

Instead of submitting the questions and answers in a Word document, you may choose to shoot a short (5- to 10-minute) video of yourself performing the lab activity, explaining the process and results. The graph required in Question 1 should be included in the video. You should then save this file to your computer, and submit it as you would any other Critical Thinking Assignment.

Module 5

Readings

- Latham, C. J. K., Palentini, L., Katemaunzanga, M., & Ashton, J. R. P. (2015). From Subsistence Agriculture to Commercial Enterprise: Community management of green technologies for resilient food production. *Future of Food: Journal on Food, Agriculture and Society*, 3(2), 8-17. Retrieved from <http://futureoffoodjournal.org/index.php/journal/article/viewFile/190/pdf>
- Ponisio, L. C., M'Gonigle, L. K., Mace, K. C., Palomino, J., de Valpine, P., & Kremen, C. (2015, January). Diversification practices reduce organic to conventional yield gap. *The Royal Society Publishing*, 282(1799). doi:<http://dx.doi.org/10.1098/rspb.2014.1396>. Retrieved from <http://rspb.royalsocietypublishing.org/content/282/1799/20141396.full>
- Qureshi, A. S., & Al-Falahi, A. (2015). Extent, characterization and causes of soil salinity in Central and Southern Iraq and Possible Reclamation Strategies. *International Journal of Engineering Research and Applications*, 5(1), 84-94. Retrieved from <http://www.biosaline.org/sites/default/files/publicationsfile/ijera-final-paper.pdf>

Discussion (25 points)

Critical Thinking (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Salinization of Soils

Hands-On Labs, Inc. Version 42-0288-00-01 (Environmental Science Lab Kit)

In this laboratory exercise, you will learn about the salinization of soils and how plants are affected by elevated salt levels in soil. You will attempt to grow bean plant seeds in controlled amounts of salinity to view the effects salinization of soil may have on seed germination.

Requirements:

- Answer all questions in clear and complete sentences.
- Your paper must be formatted according to CSU-Global Guide to Writing and APA Requirements.
- If you need assistance with your writing style, start with the links under the Research Help and Writing Help tabs on the CSU-Global Library's homepage.
- Any relevant data tables, graphs, or calculations should also be included in the submission.

Option #2: Salinization of Soils Video

Hands-On Labs, Inc. Version 42-0288-00-01 (Environmental Science Lab Kit)

In this laboratory exercise, you will learn about the salinization of soils and how plants are affected by elevated salt levels in soil. You will attempt to grow bean plant seeds in controlled amounts of salinity to view the effects salinization of soil may have on seed germination.

Instead of submitting the questions and answers in a Word document, you may choose to shoot a short (5- to 10-minute) video of yourself performing the lab activity, explaining the process and results. The graph required in Question 1 should be included in the video. You should then save this file to your computer, and submit it as you would any other Critical Thinking Assignment.

Module 6

Readings

- Murphy, D. J. (2014). The implications of the declining energy return on investment of oil production. *Philosophical Transactions of the Royal Society of London A: Mathematical, Physical and Engineering Sciences*, 372. doi:10.1098/rsta.2013.0126. Retrieved from <http://rsta.royalsocietypublishing.org/content/372/2006/20130126>
- Mielenz, J. R., Rodriguez, M., Thompson, O. A., Yang, X., & Yin, H. (2015). Development of Agave as a dedicated biomass source: Production of biofuels from whole plants. *Biotechnology for Biofuels*, 8(79), 1. doi:10.1186/s13068-015-0261-8. Retrieved from <https://biotechnologyforbiofuels.biomedcentral.com/articles/10.1186/s13068-015-0261-8>

Discussion (25 points)

Critical Thinking (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Energy Comparison of Fuels

Hands-On Labs, Inc. Version 42-0154-00-02 (Environmental Science Lab Kit)

In this laboratory exercise, you will learn how various sources of fuels are formed. You will also assemble a calorimeter and measure the heat released from two different fuel sources. You will learn about the different types of fuels, combustion reactions, and differences between the energy content in fuel sources.

Requirements:

- Answer all questions in clear and complete sentences.
- Your paper must be formatted according to CSU-Global Guide to Writing and APA Requirements.
- If you need assistance with your writing style, start with the links under the Research Help and Writing Help tabs on the CSU-Global Library's homepage.
- Any relevant data tables, graphs, or calculations should also be included in the submission.

Option #2: Energy Comparison of Fuels - Video

Hands-On Labs, Inc. Version 42-0154-00-02 (Environmental Science Lab Kit)

In this laboratory exercise, you will learn how various sources of fuels are formed. You will also assemble a calorimeter and measure the heat released from two different fuel sources. You will learn about the different types of fuels, combustion reactions, and differences between the energy content in fuel sources.

Instead of submitting the questions and answers in a Word document, you may choose to shoot a short (5- to 10-minute) video of yourself performing the lab activity, explaining the process and results. The graph required in Question 1 should be included in the video. You should then save this file to your computer, and submit it as you would any other Critical Thinking Assignment.

Module 7

Readings

- Barnes, M. L., Moran, M. S., Scott, R. L., Kolb, T. E., Ponce-Campos, G. E., Moore, D. J., ... & Dore, S. (2016). Vegetation productivity responds to sub-annual climate conditions across semiarid biomes. *Ecosphere*, 7(5). doi: 10.1002/ecs2.1339. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/ecs2.1339/full>
- Vilhena, D. A., & Antonelli, A. (2015). A network approach for identifying and delimiting biogeographical regions. *Nature Communications*, 6. doi:10.1038/ncomms7848. Retrieved from http://www.nature.com/ncomms/2015/150424/ncomms7848/full/ncomms7848.html?WT.ec_id=NCOMMS-20150429

Discussion (25 points)

Critical Thinking: Title (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Biomes, Ecosystems, and Habitats

Hands-On Labs, Inc. Version 42-0126-02-02 (Environmental Science Lab Kit)

In this laboratory exercise, you will investigate biomes, ecosystems, and habitats. You will collect data on abiotic and biotic characteristics of two distinct outdoor study areas. You will create species lists of plants and animals observed in the study area and reference the unique physical attributes of the study area.

Requirements:

- Answer all questions in clear and complete sentences.
- Your paper must be formatted according to CSU-Global Guide to Writing and APA Requirements.
- If you need assistance with your writing style, start with the links under the Research Help and Writing Help tabs on the CSU-Global Library's homepage.
- Any relevant data tables, graphs, or calculations should also be included in the submission.

Option #2: Biomes, Ecosystems, and Habitats in the Backyard

Hands-On Labs, Inc. Version 42-0126-02-02 (Environmental Science Lab Kit)

In this laboratory exercise, you will investigate biomes, ecosystems, and habitats. You will collect data on abiotic and biotic characteristics of two distinct outdoor study areas. You will create species lists of plants and animals observed in the study area and reference the unique physical attributes of the study area.

If you have limited mobility or limited access to a local natural area, you may instead do this study in a backyard if one is available. If the study must be completed indoors, you can use this website on the Distribution of Plant Species across a Footpath (<http://www.saps.org.uk/secondary/teaching-resources/127-ecology-practical-distribution-of-species-and-fieldwork-sampling>). You can navigate to the grassland transect here (<http://www.saps.org.uk/ecology/path/index.htm>), then click on “1” to view a quadrat in the middle of the path, followed by “8” to view one well outside of the pathway. You should propose a hypothesis as to which quadrant will likely contain the most plant species, and why. You should do the best you can to identify all of the plant species present in both quadrants; a photo guide is available here (<http://www.saps.org.uk/ecology/path/id.htm>). You should answer the other questions on abiotic and biotic characteristics of the site as best you can; here is an introduction to the chalk grassland habitat (<http://www.wildlifetrusts.org/wildlife/habitats/lowland-calcareous-grassland>). You should then write up your study as a PowerPoint presentation of 10 to 12 slides about the research project you carried out and what you learned. Slide subheadings should consist of the following: Introduction; Research Question; Hypothesis; Research Methods; Results; Discussion of Results; Conclusions; References. You are encouraged to include visuals to enhance your presentation. More than one slide may be necessary for a given subheading. Include a title slide and format presentation, including references and citations, following APA standards.

Module 8

Readings

- Hoekstra, A. Y., & Wiedmann, T. O. (2014). Humanity’s unsustainable environmental footprint. *Science*, 344(6188), 1114-1117. doi: 10.1126/science.1248365. Retrieved from <http://science.sciencemag.org/content/344/6188/1114>
- Huddart Kennedy, E., Krahn, H., & Krogman, N. T. (2015). Are we counting what counts? A closer look at environmental concern, pro-environmental behaviour, and carbon footprint. *Local Environment*, 20(2), 220-236. Retrieved from <http://www.tandfonline.com/doi/abs/10.1080/13549839.2013.837039>
- Neff, R. A., Spiker, M. L., & Truant, P. L. (2015). Wasted food: US consumers' reported awareness, attitudes, and behaviors. *PloS One*, 10(6). doi: <http://dx.doi.org/10.1371/journal.pone.0127881>. Retrieved from <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0127881>

Discussion (25 points)

Critical Thinking (100 points)

Choose one of the following two assignments to complete this week. Do not do both assignments. Identify your assignment choice in the title of your submission.

Option #1: Carbon Footprint and Sustainable Living

Hands-On Labs, Inc. Version 42-0285-00-02 (Environmental Science Lab Kit)

In this laboratory exercise, you will investigate how your daily activities impact the environment. You will calculate your carbon footprint and then determine how you can alter your habits to live a more sustainable life.

You should answer all experiment questions in clear and complete sentences, citing and referencing any sources used in proper APA format. Any relevant data tables, graphs, or calculations should also be included in the submission.

Option #2: Carbon Footprint and Sustainable Living Video

In this laboratory exercise, you will investigate how your daily activities impact the environment. You will calculate your carbon footprint and then determine how you can alter your habits to live a more sustainable life.

You should answer all experiment questions in clear and complete sentences, citing and referencing any sources used in proper APA format. Any relevant data tables, graphs, or calculations should also be included in the submission.

Instead of submitting the questions and answers in a Word document, you may choose to shoot a short (5- to 10-minute) video of yourself performing the lab activity, explaining the process and results. The graph required in Question One should be included in the video. You should then save this file to your computer, and submit it as you would any other Critical Thinking Assignment.

Grading Scale	
A	95.0 – 100
A-	90.0 – 94.9
B+	86.7 – 89.9
B	83.3 – 86.6
B-	80.0 – 83.2
C+	75.0 – 79.9
C	70.0 – 74.9
D	60.0 – 69.9

F	59.9 or below
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COURSE POLICIES

Course Grading

20% Discussion Participation
80% Critical Thinking Assignments

SAMPLE

IN-CLASSROOM POLICIES

For information on late work and incomplete grade policies, please refer to our [In-Classroom Student Policies and Guidelines](#) or the Academic Catalog for comprehensive documentation of CSU-Global institutional policies.

Academic Integrity

Students must assume responsibility for maintaining honesty in all work submitted for credit and in any other work designated by the instructor of the course. Academic dishonesty includes cheating, fabrication, facilitating academic dishonesty, plagiarism, reusing /re-purposing your own work (see *CSU-Global Guide to Writing and APA Requirements* for percentage of repurposed work that can be used in an assignment), unauthorized possession of academic materials, and unauthorized collaboration. The CSU-Global Library provides information on how students can avoid plagiarism by understanding what it is and how to use the Library and Internet resources.

Citing Sources with APA Style

All students are expected to follow the *CSU-Global Guide to Writing and APA Requirements* when citing in APA (based on the APA Style Manual, 6th edition) for all assignments. For details on CSU-Global APA style, please review the APA resources within the CSU-Global Library under the “APA Guide & Resources” link. A link to this document should also be provided within most assignment descriptions in your course.

Disability Services Statement

CSU-Global is committed to providing reasonable accommodations for all persons with disabilities. Any student with a documented disability requesting academic accommodations should contact the Disability Resource Coordinator at 720-279-0650 and/or email ada@CSUGlobal.edu for additional information to coordinate reasonable accommodations for students with documented disabilities.

Netiquette

Respect the diversity of opinions among the instructor and classmates and engage with them in a courteous, respectful, and professional manner. All posts and classroom communication must be conducted in accordance with the student code of conduct. Think before you push the Send button. Did you say just what you meant? How will the person on the other end read the words?

Maintain an environment free of harassment, stalking, threats, abuse, insults or humiliation toward the instructor and classmates. This includes, but is not limited to, demeaning written or oral comments of an ethnic, religious, age, disability, sexist (or sexual orientation), or racist nature; and the unwanted sexual advances or intimidations by email, or on discussion boards and other postings within or connected to the online classroom. If you have concerns about something that has been said, please let your instructor know.