3D Technology in Production/Distribution

*This could be a small group assignment of two students. (10 points)

*This activity has sustainability, inclusion, and diversity aspects.

Details:

1. Analyze lecture material and the following article to provide a 3D technology-based solution for offsetting the environmental impact of the fashion industry at two critical phases in the supply chain:
    a. According to the FastCompany article, which phases in the fashion supply chain are contributing the most to greenhouse gas emissions? Discuss and analyze the primary factors behind these emissions.
    b. What four factors are used by the EPA to define socially vulnerable populations who are exposed to the highest impact of climate change? Describe two of the key findings from the report for two different demographic groups.
    c. How can 3D prototyping technology be integrated into the supply chain to mitigate the emission concerns? Describe the results at both phases of the supply chain.
    d. How can 3D printing and mass customization processes reduce overconsumption and increase the availability of inclusive product ranges?
    e. In your opinion, is the adoption of 3D technology a valid strategy for restructuring the fashion supply chain and offsetting its environmental impact? Why or why not?

Competencies: 1) task management and completion, 2) critical decision making, 3) creative problem solving

Activity Resources:

- (Article) Sustainability of Production and Distribution in the Fashion Supply Chain - https://www.fastcompany.com/90671440/theres-no-such-thing-as-sustainable-fashion
- (Article) Disproportionate Impact of Climate Change - https://www.epa.gov/newsreleases/epa-report-shows-disproportionate-impacts-climate-change-socially-vulnerable
- (Lecture) 3D Technology Overview from Chapter 2
- (Lecture) 3D Technology in Production from Chapter 5