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Digital Storytelling [Natural Sciences]

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A well-crafted and executed storytelling assignment can serve as an efficient and engaging learning activity which targets the three highest levels of Blooms’ taxonomy which are to Create, Evaluate and Analyze. This digital storytelling assignment is part of a signature assignment series (Stage 1) conducted in all courses of the First Year Seminar for Natural Sciences (NSF101). Students begin collecting pictures and videos for their assignment from the 3rd week of the semester on a flash drive. During the fourth week of the semester, the instructor first describes the storytelling process and stages. This is followed by learning around how storytelling can be used as a narrative, to foster inquiry learning, content-based information.

In studio hour, the First Year Seminar Student Success Mentors enable students to familiarize themselves with the digital tools necessary to create their digital stories such as iMovie, narrated PowerPoint, Prezi and Powtoon (to name a few). Next, students submit a draft of their scripts, which is edited by the professor, and then students submit their final digital story. The prompts for the script ask students to reflect on their journey thus far and project forward into their future career aspirations. It also asks them to connect their content learning between courses and co-curricular experiences. The prompts within the assignment directly articulate the Student Learning Objectives of the Biology and Environmental Science Program (please see Table 1) Students complete this assignment within ePortfolio assignment templates. Link to the assignment template can be found here https://lagcc-cuny.digication.com/nsf101-digital-storytelling/home-1.
Table 1: The alignment of this assignment with Course Objectives, Student learning Objectives, Program Goals and College Competencies

<table>
<thead>
<tr>
<th>List the Program Goal(s) that this assignment targets</th>
<th>List the Student Learning Objective(s) that this assignment targets</th>
<th>List the Course Objectives(s) that this assignment targets</th>
<th>Write a short description of the pedagogy involved in executing this assignment</th>
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</table>
| **Program Goal.** To inspire students to explore connections between science and society | **SLO1.** Students will be able to connect and apply scientific concepts and thinking to everyday life.  
**SLO2.** Students will be able to articulate the relevance of science to society.  
**SLO3.** Students will be able to examine the importance of ethics in science issues. | **1.** Interpret the values and ethics of science and how these values and ethics directly influence their own personal, academic, and professional success in their science careers.  
**2.** Define the purposes of higher education and the policies and expectations of LaGuardia Community College and its faculty; and engage with the life of the College through active curricular, advising, and co-curricular participation.  
**3.** Interpret the structure and logic of scientific writing; show a basic level of proficiency in the fundamental written and oral communication skills necessary to deliver | This assignment requires students to understand the art of storytelling. Hence, instructors need to spend at least 1-2 faculty hours explaining the narrative-inquiry process of storytelling. Faculty review the cycle of storytelling, (http://edtechteacher.org/8-steps-to-great-digital-storytelling-from-samantha-on-edudemic/) and then help students research and explore the concepts that they wish to talk about in relationship with the prompts. Faculty and Student Success Mentors use 1-2 studio hours to explain to students the different software they can use to make their videos or stories. Drafts of scripts need to be submitted and graded before students make their own stories. |
**Program Goal 4.**  
To provide skills to enable students to communicate scientific information through written, oral and digital formats

| **SO9.** Students will be able to communicate effectively in oral format |
| **SLO10.** Students will be able to communicate effectively in digital format |

information in a contextual and coherent manner.
**Digital Storytelling: NSF101 – First Year Seminar for Natural Sciences**

**Competencies: Global Learning & Integrative Learning**
**Abilities: Oral and Digital**

This assignment will enable you to demonstrate two of LaGuardia’s key competencies, Integrative Learning and Global Learning (descriptions below). It also requires you to work on your digital and oral communication skills.

**Integrative Learning** is a key skill you will develop – it is the ability to connect what you’re learning across courses, over time, and between campus and community life (including work and social settings). This assignment requires you to step back and think about how your different courses, assignments, reflections, and co-curricular experiences are related and interconnected.

**Global Learning** requires you to understand global issues, events and histories. It will require you to strengthen your knowledge and understanding of divergent global perspectives and ethics.

**Digital Communication** Effective digital communication will enhance interaction and/or employ diverse media elements to enhance digital composition of your content. Digital communication employs an evolving range of digital tools and platforms for purposeful composition, including but not limited to websites, ePortfolios, PowerPoint presentations, multimedia blogs and Tweets, and digital stories.

**Oral Communication** Your posture, body language, tone, pacing, clarity of voice and audio in the digital story are all of key importance. Good oral communication is cornerstone in creating a cogent digital story.
Now for your assignment!

Please use the prompts below to help create a 5-8 min video. The video can be of yourself or a voiced over power point presentation. Please write out a script for your video before you start filming and editing. Be as creative as you like! Please upload the video into your ePortfolio as follows: NSF101 > NSF Digital Storytelling template.

Please click on this link to give you an overview on how to make your digital story.
http://electronicportfolios.org/digistory/howto.html

Prompts for video:

Please include photos, images and other video in your recording (not just a recording of yourself)

These questions test your integrative learning competency.

1. Introduce yourself. Why are you passionate about science? Tell us what motivated you towards a science career.
2. Recount one experience you had before coming to LaGuardia that you think will help you be successful here?
3. How have you applied something you’ve learned in the FYS (time management, for example or the scientific method) in another course? Please give a few examples in as much detail as possible.
4. How has or how will your FYS learning impact your approach to major-specific courses (in science, technology, engineering or math)?
5. What’s one piece of work you’ve done in another class that you’re proud of? Explain in as much detail as possible. Why are you proud of it?
6. What’s the most important thing you’ve learned in one of your other (non-FYS) classes? Why is it important to you? How might you use this skill or knowledge in future courses?
7. What other pages or sections of your ePortfolio show the ways you’re growing and changing as a learner? Please describe. You can also link to those pages or create a collage of your best work in your video.
8. Think about your written assignment (Research Paper), how is your assignment relevant to your learning? How will this paper prepare you for your other major specific courses like General Biology I and/or Cell Biology/Environmental Science?

These questions test your global learning competency.

9. Think of a co-curricular event that you attended this year. Can you use what you learned at this event to identify implications that it might have on the natural, social, cultural, economic, and political world? How do human actions affect local and global environments? (For example. If you went to the co-curricular at LAGCC called Green Week, you could talk about how your
understanding of carbon emissions has redefined your view of climate change across the globe and in your local community.)

10. Think of a co-curricular event or topic discussed in class that made you aware of how diverse cultural perspectives are shaped within global contexts. Please discuss briefly in your video your learning around this. (For example, if you attended a women in STEM event at LAGCC, how did the female panelists describe their career journeys? What implications does this have on gender equity? How does this relate to cultural biases that people may have around females pursuing STEM careers.)

Please see Rubric below which will be used to grade your work.

**NSF 101 Digital Storytelling – Rubrics**

Addresses the dimensions of the Digital and Oral Communication Rubric:
1= Minimally
2= Somewhat
3= Mostly
4= Well-Done

Addresses the dimensions of the Global Learning Rubric:
1= Identifies
2= Describes
3= Discusses
4= Analyzes

Addresses the dimensions of the Integrative Learning Rubric:
1= Presents examples
2= Connects
3= Connects and Compares
4= Synthesizes
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<tr>
<th>Competency/Ability</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Dimensions</th>
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<tbody>
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<td><strong>Digital Communication</strong></td>
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<td><strong>Content Development and Organization:</strong> Content is organized, clear and logical. Facts are not confused with opinions. Sources are credible and relevant.</td>
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<td><strong>Mechanics of Communication:</strong> Is clear, fluent and appropriate. Grammar, vocabulary and professional language are appropriate.</td>
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<td><strong>Purpose of Communication &amp; Graphic Design:</strong> Is clear, the style and use of graphics strongly supports the purpose of the communication.</td>
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<td><strong>Digital Storytelling:</strong> Communicates story creatively through a digital platform. Demonstrates use of digital capacities which enhance interaction and/or employs diverse media elements to enhance digital composition.</td>
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<td><strong>Oral Communication</strong></td>
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<td><strong>Body Language:</strong> Articulation, tone, volume, pace, eye contact and other body language are appropriate.</td>
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<td><strong>Audio Content and Clarity:</strong> The content of the audio is audible to the listener. It is clear, sound quality is good and the speaker communicates the story such that the voice is well heard even if there is a background score/music added.</td>
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<td><strong>Global Learning</strong></td>
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<td><strong>Understanding Global Issues and Events:</strong> Analyzes global issues and events. Identifies their interdependent implications on natural, social, cultural, economic and/or political world.</td>
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<td><strong>Communicating Knowledge in Global Contexts:</strong> Awareness of how diverse cultural perspectives are shaped within global contexts and ability to communicate across difference.</td>
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<td><strong>Ethical Engagement and Global Self-Awareness:</strong> Recognizes ethical dimensions of global issues. Articulates global self-awareness and connection between human actions and global issues and events.</td>
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<td><strong>Integrative Learning</strong></td>
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<td><strong>Connections between and among Disciplines:</strong> Identifies and draws insight from connections across disciplinary perspectives.</td>
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<td><strong>Connections to Experience:</strong> Identifies and draws insight from connections across relevant learning experiences including personal, co-curricular and academic.</td>
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<td><strong>Reflection and Self-Assessment:</strong> Demonstrates a developing sense of self as a learner by building on prior experience.</td>
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<td><strong>Ability to Apply Learning Across Diverse Contexts:</strong> Applies knowledge skills and theories across different learning experiences.</td>
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