

Expository Paper Assignment

The primary purpose of this exercise is to apply critical analysis to a musical performance, some other type of performance with prominent acoustical content and/or effects, or to a procedure, practice, or technology within the area of acoustics using the knowledge you have gained in UNIV 213. A secondary purpose is to motivate you to explore musical styles, performance opportunities, or acoustical effects that you might not have considered in the past. The world of sound and music is rich and varied. There are surprises to be discovered in some of the most unexpected places.

This assignment is an opportunity for you to investigate on your own an interesting topic in the area of sound, music, or, more generally, acoustics, that you find fascinating and that addresses at least one of the two learning goals that characterize a course with Bucknell's NMLG (Natural Sciences and Mathematics Learning Goals) designation:

1. "Students will demonstrate knowledge of scientific and/or mathematical content and principles in a disciplinary field."
2. "Students will develop skills that enhance their ability to think critically about scientific, technological, and/or mathematical issues."

The assignment will culminate in a roughly two-page expository paper that demonstrates that you have achieved a sophisticated understanding of a topic relevant to the course beyond the regular classroom coverage.

Some broad examples of topics that would be suitable for this assignment include but are not limited to:

1. Explain how a musician achieves an interesting musical effect with their instrument.
2. Explain how a musical instrument that does not commonly appear in orchestras or popular music ensembles works.
3. Describe the scientific, engineering, or mathematical foundations of a specific element of music theory or composition.
4. Explain the science and/or technology behind a particular type or class of sound effects used in motion pictures.
5. Explore a specific scientific, engineering, or mathematical topic related to sound and/or music that we could not cover in UNIV 213 this semester that you are interested in.

If your topic is covered to some degree in the course textbook (Rossing, Moore, and Wheeler, 3rd ed.), then your paper must expand well beyond the textbook's treatment.

Requirements:

1. Select a topic within the scope of the course, which is the exploration of the scientific, engineering, and mathematical foundations of music and sound. Topics that focus mostly on the artistic aspects of music and performance, while certainly interesting, do not satisfy the goals of this assignment and are therefore not appropriate.
2. Each student must select a topic that is substantially different from all of the topics chosen by other students; that is, no two students may write about the same subject.

Topics will be approved in the order in which they are proposed. If you propose a topic that is similar to one that has already been chosen, you will be required to propose a new topic. A frequently updated list of approved topics will be maintained on the Assignments page at the course web site.

3. By 9:00 pm ET (8:00 pm CT) Monday, April 20, e-mail me a brief description of your proposed topic. You may include an outline if you wish. If relevant, include a link to an online performance, video, or web site that serves as the main subject or focus of your paper. I will either approve your proposed topic as you have described it, or I will suggest that you modify it. I recommend that you wait for me to respond before proceeding further.
4. The paper must consist of no more than two pages of single-spaced text (roughly 1000 words). The font size must be at least 11 points, and all margins should extend at least one inch.
5. You may include photographs and diagrams in your paper (with properly formatted captions), but the word count must still be no more than roughly 1000.
6. You must cite all references and other forms of intellectual property that belong to others.
7. By 11:59 pm ET (10:59 pm CT) Monday, April 27, submit your paper via the appropriate link at the UNIV 213 Moodle site, preferably in PDF format. PDF files must be generated by conversion, not scanning, since text is usually not saved in image files produced by scanning. All papers will be submitted to TurnItIn to confirm originality.

Special Guidelines and Other Important Information:

1. Contact me immediately if you experience technical challenges that prevent you from submitting the required proposal e-mail or the final paper on time. If you lose internet access, call my office phone at (570) 577-1313. If I do not answer, leave a voicemail message.
2. Due to time constraints, I will probably not be able to provide significant technical assistance outside of the usual online help sessions. Note that homework support must take precedence during help sessions. If you find that you require additional technical expertise to fully understand and write about your topic, you will either have to find it yourself or pursue another avenue.

Scoring Criteria:

The expository paper will account for 30% of your final course grade. Each paper will receive an overall numerical score of 0–30 points determined by adding the scores achieved in the categories listed below, quantized at the indicated point levels.

0, 3 pts	Submission of initial description of topic by deadline
0, 7, 10, 13, 16 pts	Quality of exposition
0, 3, 6, 9 pts	Quality of writing (including organization, grammar, word choice, style)
0, 2 pts	Superior exposition and/or writing

Scores for papers submitted after the deadline will be reduced 3 points/day (not including weekends), except for extenuating circumstances such as serious illness or family emergencies. Depending on the nature of the circumstance, it might have to be verified in coordination with your academic dean's office.