How to prepare a poster board presentation?

This presentation offers suggestions on how to create a poster board as well as provides twelve poster examples from past Honors Conferences. Please work closely with your professors as you develop your research/poster projects.

Tri-fold poster boards are supplied by the Honors Program and are available at two locations: Bedford: Commonwealth Honors Office, Building 9-107, or Lowell City Campus: 5th Floor, Admin Assist Area.
The title reflects the purpose (thesis/research question) of your project and should inform the viewer of what will be learned from your poster presentation. Here are some title examples:

The Influence of Buddhism on Central Asian Art
The Development of Memory in Individuals with Downs-Syndrome
The Music and Culture of Byzantium
The Amazon Rainforest: Nature’s Pharmacy
The Cultural Legacy of Asoka: a Buddhist Convert
Applications of the Derivative: The Maximum and Minimum
The Tri-fold Poster
What to put on the poster panels?

Use images and text that support or explain your thesis/question on each panel of the tri-fold poster. The images and text boxes must illustrate your theme as well as capture the attention of viewers. Do not overwhelm the poster with text or image boxes, but strive to create a visually inviting presentation with the objective of explaining your research project as well as attracting people to visit your poster.

When someone arrives at your poster, it is your job to engage the viewer with a lively presentation where you explain the poster and offer information and answer questions in no more than a five minute presentation.
In a lively manner, explain/describe the following as part of your five minute oral presentation. It is best to rehearse this aloud before the April Conference.

- What is your thesis or research question?
- Why did you select the topic?
- What did you learn?
- What sources were used to do the research?
- What conclusions did you reach?
- What is the overall significance of your project?
- Ask the viewer(s) if they have any questions?
DOCUMENTATION

List your sources on the lower right hand corner of the poster board so that everyone can see where you collected your information. Please use the proper documentation format relevant to the academic discipline of your research project.
Proof Reading ~ The Look of the Poster Board

All the carefully selected images, important text explanations, quality source materials, and excellent oral presentations will not be impressive if you have misspellings, improper grammar/syntax, or crudely prepared materials on your poster. Any of these errors will make your poster look sloppy, so please be sure to proof read and offer a quality finished product that you and your professors will be proud to display. Thank you!
Criteria – Rubric – for Evaluating Poster Boards

1. Clarity of thesis statement/research question: did it inform the viewer about the purpose of the poster board?

2. Visual presentation of the poster: did the selection and quality of images capture the attention of the viewer and help contextualize - explain the thesis/research question?

3. Documentation and use of sources: was it clear from the poster board that you used a variety of sources to support your research project?

4. Oral presentation: was it well rehearsed and did it include an explanation of the thesis, the key points that support your project’s theme, and a brief review of your conclusion?
What follows are some examples from previous Honors Poster Conferences. For more examples, please review slide shows of previous conferences available at this website.
WINOGRADSKY COLUMNS ILLUMINATED: THE EFFECT OF DIFFERENT LIGHT ON BACTERIA

ORGANISMS SEEN UNDER THE MICROSCOPE
- Cyanobacteria
- Frotists

OTHER ORGANISMS OBSERVED
- Green Sulfur Bacteria (Chlorobium)
- Purple Non-Sulfur Bacteria (Rhodopseudomonas)

METHODS
1. To create Winogradsky Columns:
   a. Add about 40g of “pond” mud to each of 4 test tubes.
   b. Add about 2g of Calcium Sulfate and Sodium Phosphate, and 1g of sulfadiaacetone to each tube and stir until dissolved.
2. Pour 10mL of “pond” water into each test tube.
3. Expose to light sources: Natural Sunlight, Fluorescent, and Ultraviolet.
4. Observe changes in color and size of layers.
5. Observe content of columns under a microscope.

RESULTS
- Incidence
  - Cyanobacteria and protein occur under the microscope in larger quantities than expected.
  - Fluorescein
  - Cyanobacteria and protein occur under the microscope in smaller quantities than expected.

CONCLUSIONS
- Despite no support for the hypothesis that bacterial conditions affect the outcome of the experiment, the results suggest a relationship between light and bacterial growth.
The Influence of Confucianism on Eastern Asian Families

CONCLUSION

The teachings of Confucius changed the way people in Eastern Asia lived. He emphasized family structure and relationships. Confucius taught ancestors, elders, and the younger sibling. Obedience is a characteristic that was emphasized in the family. The younger siblings were expected to obey any order from the elders. Obedience is a characteristic that was emphasized in the family. The younger siblings were expected to obey any order from the elders. The male is considered the head of the family. Researchers also researched and discussed how people conduct themselves in society and the roles they had within a family. The social hierarchy of individuals and the family. Confucianism became popular in Eastern Asia because of the values and the countries’ culture. As a result, many families desired a Confucian education to continue their family’s lineage. Confucianism focused on the role of relationships within a family and society.
New research offers a compelling case for music as an innate biological function.

The Adapted Brain
- Certain physical structures of the brain are used solely for the processing of music, and not for speech or other auditory input.
- Neurological, known as pitch areas, which process the interpretation of melody, rhythm, and other aspects of music.

Music is used throughout the world as a means of understanding, respecting, and bridging cultural differences.

Natural Selection
- Evidence that music's adaptive role is significant in its role in sexual selection; all other animals that exhibit similar behaviors, such as birds and dolphins, have also been shown to produce music.
- The specific evolutionary pressures that led to music being a more refined and sophisticated form of communication in Homo sapiens are not yet fully understood.

Cross-Cultural Meets Popular
- Paul Dean Johnson, winner of several Grammy Awards, explores the world's favorite music from different cultures.

Orchestras Bring People Together
- The New Orchestra brings musicians from around the world to perform together, celebrating the diversity and unity of music.

Non-Musicians Sure Are Musical
- Many deaf individuals have demonstrated musical ability, highlighting the universality of music as a form of expression.

World Music Crosses Borders
- Music transcends cultural and geographical boundaries, bringing people together through shared experiences and emotions.

Music and the Deaf
- A few times a year, a concert for the deaf is held in a special venue, bringing together musicians and audiences who share a love for music.

Samuel B. Litvin
A Long History of Distrust

Anti-intellectualism in America
A history of policies and attitudes toward intellectualism, in an attempt to define qualities of modern American culture

Who are these women?

What about TJ?
Caring for the elderly in India, China, and the United States of America

China

History and Culture
- China's philosophies have centered around the family and respect for elders.
- In earlier times, the younger generations cared for their parents and grandparents. The elderly were considered to have a connection to the ancestors and were very wise.
- As in India, the practice of using an elder care facility has been increasing, but there are still 31% of adult children that want to take care of their parents. (Hong Kong)
- "Chinese culture has been heavily influenced by Confucian traditions, which place great emphasis on parent-child relationships." (Tang).

United States of America

History and Culture
- 1650-1870: Less than 2% of the population was considered elderly. They were revered for their wisdom.
- The American Revolution started a culture where the elderly were more cherished than the old (Fleming).
- In the 20th century, the elderly were seen as a burden on society because they could not advance.

Socioeconomic factors are fundamental to the care of the elderly in India, China, and the United States of America

- After the Great Depression, President Franklin D. Roosevelt signed the Social Security Act.
- Safety net for poor and elderly
- Questions if some people deserve benefits and not others
- Some of the younger generations believe that the elderly should not be trusted with important decisions.

India

History and Culture
- Government families have been influenced by the wants of the community.
- "Great Indian families have been influenced by the want to care for the elderly and the desire for children." (India)
- Only 1% (about 250,000) of India's older population lives in a retirement home. (India)
- Only 1% of the population was living in a retirement home where the husband and wife had died.

Conclusions
- The elderly in China and India are still considered family members and are looked up to.
- The elderly in the United States are not looked up to in the same way.
- The elderly in China and India are also looked up to in the same way.

Reflections
- Although senior housing has been around for over 300 years, India still has a large population of elderly individuals. This may be due to the longer life expectancy and the desire to care for the elderly.
- The elderly in the United States are not looked up to in the same way.
- The elderly in China and India are also looked up to in the same way.
Charlotte Perkins Gilman

Born on July 3, 1860 in Hartford, Connecticut. His father was a well-known Unitarian, Horatio Beecher Perkins, and his mother a niece of Harriet Beecher Stowe. Gilman attributed her talent for speaking to her mother's role in speaking at her daughter's funeral. She was an infant when her father abandoned the family, leaving her mother to tend to her older brother and Charlotte on her own. Because of this, they moved around a great deal and lived in poverty. Her father's infrequent visits were a cause for him to encourage her to read. As a young child and teenager, she attended the Rhode Island School of Design.

She married Charles Walter Stetson in 1884 and in 1888 she gave birth to a daughter, Katherine Beecher Stetson. She had suffered from mild depression during the first months of her marriage, and after the birth of Katherine it worsened. She was prescribed the rest cure, a popular treatment in those days. It involved being cut off from family and friends, long letters and multiple physical activities. The rest cure was one of the main themes in her most famous book, *The Yellow Wallpaper*, and one wonders if the suffering of the woman in the story was intended as a description of Gilman's situation in those gues.

Eventually Walter Suton found for divorce and Charlotte left him and her child and headed to California to find her way in the world. She became an advocate for women's rights and a powerful speaker and author. Later in life she married her cousin George Gilman.

While received well in her time, her writing fell by the wayside after her death. It came back into popularity with the women's movement of the 1960s. Her death came at her own hands, long suffering from cancer, she chose to die from inhaling chloroform rather than suffer from the cancer.

Her work and beliefs have played a tremendous role in women's rights at a time when they had very few, and her ideas continue to inspire women and men today.
APPLICATIONS OF THE DERIVATIVE
MAXIMUM AND MINIMUM

DEFINITION
In mathematics, the maximum and minimum of a function, known collectively as extrema, are the largest and smallest values that the function takes at a point either within a given neighborhood (local or relative) or on the function domain in its entirety (global or absolute extremum).

More generally, the maximum and minimum of a set (as defined in set theory) are the greatest and least elements in the set. Unbounded infinite sets such as the set of real numbers have no maximum and minimum.

To locate extreme values is the basic objective of optimization.

LEONHARD EULER
One of the key mathematicians who focused on the applications of maxima and minima was Leonhard Euler. He made important discoveries in Fields, including influential analytical and graph theory. He also introduced much of the modern mathematical terminology and notation. His work in the field of mathematical analysis, such as the notion of a derivative, is still used today in mechanics, fluid dynamics, and other sciences.

“Euler is the Isaac Newton of the arts; the purest of the pure; the artist of artists; the greatest of all the man who have made a science of art.”

The poster is split into several sections, each covering a different topic related to derivatives and their applications:

1. DEFINITION
2. CRITICAL POINTS OF $f$
   - Critical point: $c$ in the domain of $f$ such that
   - $f'(c) = 0$ (stationary point)
   - $f'(c)$ does not exist

3. CANDIDATES FOR RELATIVE EXTREMA
   - Stationary point: any $c$ such that $c$ in the domain of $f$ and $f'(c)$ is undefined
   - Slanting point: any $c$ such that $c$ in the domain of $f$ and $f'(c)$ is undefined

4. MAXIMUM POINT
   - candidates for relative extrema

5. SECOND DERIVATIVE TEST
   - If $f''(c) > 0$, then $f$ has a local minimum at $c$.
   - If $f''(c) < 0$, then $f$ has a local maximum at $c$.

6. RELATIVE EXTREMA
   - Relative maximum: if $f$ has a relative maximum at $c$, then
   - Relative minimum: if $f$ has a relative minimum at $c$.

7. OPTIMIZATION PROBLEMS
   - Optimization problem: to maximize $f(x)$ subject to the constraint $g(x) = 0$.

8. MAXIMIZING PROFIT
   - Suppose the revenue of a company can be represented by $R(x) = px$, and the company's cost function is $C(x) = cx + d$, where $x$ represents the quantity of units sold, and $p$ and $c$ are represented by the coefficients of the function. What production level maximizes profit and what is the maximum profit at the optimal level?
The Cultural Legacy of Asoka

Missionaries as a Vehicle for the Spread of Buddhism

Shaper of the World

- Emperor Asoka's reign, 273-232 B.C.E., saw Buddhism's rise from a minor religion in northeast India to the dominant faith of the Subcontinent and beyond.
- Asoka wrote his history and codified his commands on his Rock Edicts, spreading his expanding "conquest by Dharma".
- Asoka's name is revered in local writings throughout South and East Asia.
- The largest religion in the world until the spread of Asian Communism, Buddhism now has between 500 million and 1.5 billion followers.

Religious Conversion

- Asoka's edicts detail his conversion to Buddhism, for example:
  - "Asoka came to believe in Buddhism and renounced all violence and all killing for the rest of his life."

Empire of the Sword

Revelation of Grief

Empyre of the Dharma

Truth or Fiction?

Lasting Legacy

- As a convert, Asoka's reign saw the spread of Buddhism beyond his borders and for his sons.
- Buddhism spread to other lands.
- The belief was later to be challenged by various empires.
The Music and Culture of Byzantium:

AN ANALYSIS OF ITS MUSICAL HISTORY AND INFLUENCE ON WESTERN LITURGICAL MUSIC

The Hagia Sophia

There are two historic sources of Choir Hymns

Gregorian Chant

Points of Influence on the Western Tradition

Track Listing

Points of Influence on the Western Tradition

Western Church

Composing for Greek Orthodox Monasteries and Churches

Composing and Singing Services

Points of Influence on the Western Tradition
The Influence of Buddhism on Wang Wei's Poetry and Art

Thesis
Wang Wei's paintings and poetry reflect his Ch'an Buddhist philosophy. The belief that words alone cannot adequately express the true state of enlightenment. The natural world is the only reality; a person should live a life without deliberate effort or purpose. The influence of Ch'an Buddhism is evident in Wang Wei's sparseness of words and the minimalism of his paintings.

Deer Park
Hills empty, no one to be seen.
We hear only waves sounded
Shining light streaming back into the deep wood.
The top of the green mountain is lost again.

Translated by C. F. Andrews, 1907

Character by Character translation

Deer Park
Empty hills, no one in sight.
Only the sound of someone talking.
Our sunlight drenches the deep wood,
Glimmering over the green mountain.

Translated by Burton Watson, 1959

The Influence of Buddhism on Wang Wei's Poetry and Art

The Deer Park
An empty hill, and no one in sight.
But I hear the echo of voices,
The distant sun of morning penetrates the deep wood,
And shown reflected on the blue shimmer.

Translated by Isami Minoru, 1959
Introduction
How do we recall situations of our past? How can we grow and learn based on past experiences? How does this ability develop in people with Down syndrome? Memory is the ability to remember situations as well as the capacity of remembering. Down Syndrome is a genetic disorder that affects directly the part of the brain that is involved with memory. Studies had shown that there is a link between Down syndrome and Alzheimer’s disease, that is a type of dementia causing the degeneration of memory.

Statistics
2% of the world’s population has Down Syndrome
6% of the world’s population has Alzheimer
At the age of 65, 96% of the population of Down syndrome people develops Alzheimer diseases

Conclusion
Memory develops differently in down syndrome individuals because of the basic impairment in the phonological loop of the brain. The link between Alzheimer disease and Down Syndrome is that both individuals have shown a great amount of beta-amyloid plaquets in the brain which causes the degradation of memory.