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 the Commonwealth Honors Office, Building 9-107, honors@middlesex.mass.edu 781-280-3553
The title reflects the purpose (thesis/research question) of your project and should inform the viewer of what he/she will learn 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 on each panel of the tri-fold poster. Select images and develop text that 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 — no more than a five minute presentation.
What should you say to the viewer?

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!
Examples from previous Honors Poster Conferences....
WINOGRADSKY COLUMNS ILLUMINATED:
THE EFFECT OF DIFFERENT LIGHT ON BACTERIA

GOAL
To observe the effect of different light on the growth of bacteria in Winogradsky Columns.

HYPOTHESIS
The growth of bacteria will be affected by the type of light. Different bacteria may grow better under different types of light.

METHODS
1. Place Winogradsky Columns in the desired light conditions.
2. Monitor the growth of bacteria over time.
3. Compare the growth of bacteria under different light conditions.

RESULTS
- Cyanobacterium: Rapid growth under all light conditions.
- Protists: Slight growth under all light conditions.
- Green Sulfur Bacteria: Moderate growth under all light conditions.
- Purple Non-Sulfur Bacteria: Slow growth under all light conditions.

CONCLUSIONS
- Light conditions significantly affect bacterial growth.
- Different bacteria have different light requirements.

REFERENCES

ORGANISMS SEEN UNDER THE MICROSCOPE
- Cyanobacterium: Rapid growth under all light conditions.
- Protists: Slight growth under all light conditions.
- Green Sulfur Bacteria: Moderate growth under all light conditions.
- Purple Non-Sulfur Bacteria: Slow growth under all light conditions.

THE WINOGRADSKY COLUMN
- Aerobic Post: Photosynthesis
- Anaerobic Post: Cyanidium
- Microscopic View: Cyanobacterium
- Cyanobacterium: Rapid growth under all light conditions.
- Protists: Slight growth under all light conditions.
- Green Sulfur Bacteria: Moderate growth under all light conditions.
- Purple Non-Sulfur Bacteria: Slow growth under all light conditions.

ORGANISMS OBSERVED
- Cyanobacterium: Rapid growth under all light conditions.
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OTHER ORGANISMS OBSERVED
- Cyanobacterium: Rapid growth under all light conditions.
- Protists: Slight growth under all light conditions.
- Green Sulfur Bacteria: Moderate growth under all light conditions.
- Purple Non-Sulfur Bacteria: Slow growth under all light conditions.
The Influence of Confucianism on Eastern Asian Families

CONCLUSION

The teachings of Confucius changed the way people in East Asia viewed family structure and relationships. Confucius taught ancestor worship and the importance of family. Obedience is a characteristic that was emphasized in Confucianism, with the younger siblings expected to obey their elders. Obedience is a characteristic that was emphasized in Confucianism. The male is considered the head of the family, and relationships and how people conduct themselves in society are influenced by the roles they had within a family. The social hierarchy is reflected in the obedience stated that a daughter should obey her father, and a widow should obey her husband, and was allowed to impose their views on their husbands and influence them. Confucianism became popular in Eastern Asian countries' culture. As a result, many families desired a form of family and society. Confucianism focused on the family and society.

REFLECTION

"Even though you sleep intimately in the same bed and..."
New research offers a compelling case for music as an innate biological function.

The Adapting Brain

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

Cross-Cultural Meets Popular

Orchestras Bring People Together

Music and the Deaf

World Music Crosses Borders

The meaning conveyed by music is not necessarily culturally dependent.

Universality of Cognition

Universal Meaning

Musical Communication

Non-Musicians Sure Are Musical

Some of the best evidence for musical intelligence is the cognitive development of deaf children. When asked to choose between musical and non-musical activities, deaf children choose music over other arts and crafts.

A strong common core of musical understanding allows us to understand and appreciate music from different cultures and traditions.
New research offers a compelling case for music as an innate biological function.

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

The Adapted Brain
- Evolutionary and adaptive traits of the brain are used solely for the processing of music, not for speech or other auditory inputs.
- Neuroplastic abilities, known as plasticity, which allow the reorganization of networks, rhythm, and affect responses of music.

Natural Selection
- Evolutionary and adaptive traits of the brain are used solely for the processing of music, not for speech or other auditory inputs.
- Neuroplastic abilities, known as plasticity, which allow the reorganization of networks, rhythm, and affect responses of music.

Cross-Cultural Meets Popular

Orchestras Bring People Together
The West-Eastern Divan Orchestra brings musicians from Israel, the Palestinian territories, and several Arab countries together as they play for bringing the world together. As the Orchestra’s website explains, “Music gives us the power to heal the right and obligation to live our life fully while listening to his or her neighbor.”

Non-Musicians Sure Are Musical
Some of the most famous non-musicians in the world have had a strong influence on the development of music. They have had a profound impact on the development of music that shows the power of music to unite people.

World Music Crosses Borders
Music is a universal language that connects people across cultures. It transcends borders and brings people together.

Music and the Deaf
A sign language interpreter is seen on stage with a conductor and orchestra. Sign language interpreters are essential in bringing music to a deaf audience, translating the music into sign language for them to enjoy.
A Long History of Distrust

Since it is seldom clear whether intellectual activity demands a superior level of being or a vital deficiency, critics argue that introducing women to privilege and naming it as a handicap. In many women.

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?

Susan B. Anthony, Elizabeth Cady Stanton, Harriet Beecher Stowe

What about TP?

Tom Paine

Egghead: “A person of spurious intellectual pretensions, often a professor or the protege of a professor.” Fundamentally superficial. Over-orchestrated and bombastic in reaction to any question or issue. Ideology is accompanied by condescending and dismissive tone. Enrages intellect and is often resented by women of intellect.

Footnote: “A trend toward more intellectualism in American society has led to an increase in the number of women who are interested in political, economic, and social issues. This trend is evident in the increasing number of women who are active in political and social organizations, as well as in the growing number of women who are involved in the intellectual and cultural life of the country.”

The quote is from the Encyclopedia Britannica, 1990 edition.
Charlotte Perkins Gilman

Born on July 3, 1860 in Hartford, Connecticut, she was the daughter of a well-known physician, Frederic Becher Perkins, and his wife, Harriet Beecher Stowe. Gilman attended a school for girls run by her uncle, Harriet Beecher Stone. She was an excellent student and liked reading. When she was an infant, her father abandoned the family, leaving her mother to support 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 sore point for him to encourage her to read. As a young child and teenager, her school attendance was sporadic, but in her early 20s she attended the Rhode Island School of Design.

She married Charles Walter Stetson in 1884 and in 1885 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 stays, and little to no physical activity. The rest cure is 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 indeed an allusion for Gilman, or simply where she gets the idea for the short story was conceived.

Sympathetically Walter Stetson 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 she lived in California, her writing fell by the wayside after her death. It came back into popularity with the women's movement of the 80s. Her death came of her own hand, long suffering from depression, she chose to die from taking 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 death contributed to change when women were denied.
Applications of the Derivative
Maximum and Minimum

Definition

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

A maximum is a point where the function value is greater than or equal to all other function values in a neighborhood. A minimum is a point where the function value is less than or equal to all other function values in a neighborhood.

Leonard Euler

One of the first mathematicians who found and used critical points extensively for Maxima and Minima was the famous Leonard Euler. He made important discoveries in mathematics, particularly in the field of analysis.

Absolute Extrema

A function f has an absolute (global) maximum at x = c if f(x) ≤ f(c) for all x in the domain of f. Similarly, a function f has an absolute (global) minimum at x = c if f(x) ≥ f(c) for all x in the domain of f.

Critical Points of f

A critical number of a function f is a value c in the domain of f such that:

- f'(c) = 0 (stationary point)
- f'(c) does not exist (cusp point)

Candidates for Relative Extrema

1. Stationary points: a point c in the domain of f such that f'(c) = 0.
2. Points of discontinuity: a point c in the domain of f such that f'(c) does not exist.
3. Removable discontinuities: a point c in the domain of f such that both f(c) and f(x) approach the same limit as x approaches c from either side.

First Derivative Test

If there is a critical point c of a function f, then f has a local maximum or minimum at c if:

1. f'(x) changes sign from positive to negative as x passes through c from the left to the right.
2. f'(x) changes sign from negative to positive as x passes through c from the left to the right.

Relative Extrema

A function f has a relative (local) maximum at x = c if f(x) ≥ f(c) for all x in some open interval containing c. Similarly, a function f has a relative (local) minimum at x = c if f(x) ≤ f(c) for all x in some open interval containing c.

Optimization Problems

A function is to be maximized or minimized within a certain domain or subject to certain conditions.

Open Box Problem

An open-top box with a square bottom and rectangular sides is to have a volume of 256 cubic inches. Find the dimensions that require the least amount of material.

Profit Maximization

Suppose that the revenue of a computer store is represented by the function R(x) = 120x - 0.8x^2, and the cost of producing x units is given by C(x) = 20x + 500, where x represents the number of units produced and sold. The profit is given by P(x) = R(x) - C(x). The objective is to find the production level that maximizes profit.
The Cultural Legacy of Asoka

Missionaries as a Vehicle for the Spread of Buddhism

- 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, spread over 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

- Buddhist missions produced statues out of wood and stone that were later converted to Buddhist use. Asoka’s reign ended with an edict to stop these conversions, but a long battle ensued as the missions continued to spread into other areas.

Empire of the Sword

- Seeking to expand his Maurya Empire, Asoka initiated a war of conquest against the neighboring kingdom of Kalinga.
- By Asoka’s own account in his Rock Edicts, 100,000 Kalingans died and 150,000 were deported.

Revelation of Grief

- The Buddhist missions spread Buddhism’s core teachings of compassion, empathy, and nonviolence.

Empire of the Dharma

- As written in one of Asoka’s Edicts, Buddhism spread from his capital, Pataliputra, to cover all of India, Sri Lanka, as far west as Afghanistan, and as far north as Burma.

Truth or Fiction?

- As a child, Asoka studied a variety of religions, including Buddhism, Judaism, and Hinduism.

Lasting Legacy

- Asoka remains a key figure in the study of ancient India and the spread of Buddhism.
The Music and Culture of Byzantium:

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

Points of Influence on the Western Tradition

Track Listing

- The Monastery of Athos
- Theokritos of Mount Athos
- The Monastery of Mount Sinai
- The Monastery of St. John the Baptist
- The Monastery of St. John the Evangelist
- The Monastery of St. Mary Magdalene
- The Monastery of St. Nicholas
- The Monastery of St. Paisios
- The Monastery of St. Savvas
- The Monastery of St. Symeon

Gregorian Chant

- San Felice in Cantone
- San Pietro in Montorio
- San Zeno
- Santa Maria Maggiore
- Santa Maria in Trastevere
- Santa Maria del Popolo
- Santa Maria degli Angeli
- Santa Maria in Trastevere
- Santa Maria in Trastevere
- Santa Maria in Trastevere
THE AMAZON RAINFOREST: STILL THE WORLD’S UNTAPPED PHARMACY

Benefits
The Amazon Rainforest has supplied mankind with thousands of species of plants and animals that have had an enormous impact on curing many human diseases and ailments. One current example is the Mexican magic mushroom that is proving to be a long sought-after cure for cluster headaches. These headaches prove to be worse than migraines and can last for weeks. Other plants of the rainforest have provided cures for arthritis, shorten beriberi, fever and even the compounds that give “the whoop.” Our Earth’s home and even the compounds that give “the whoop.” Our Earth’s home and even the compounds that give “the whoop.”

Untapped Possibilities
- 10% of all medicines used by humans have their source in the Amazon Rainforest.
- 3000 species of plants and animals have been studied for potential medicinal uses.
- Many of the plants found in the Amazon Rainforest have not been studied for potential medicinal uses.

Conclusion
- The Amazon Rainforest is home to a vast array of species that have potential medicinal uses.
- Further research is needed to fully understand the benefits of the Amazon Rainforest.

Is There Hope?
The encouraging news is that there are some organizations and pharmaceutical companies that are aware of the plight of the Amazon and are actively doing something about it. Merck & Company, Inc. and the National Institutes of Health are only a few of the companies that are working to protect the rainforest.

Conservation
- Protecting the rainforest is crucial to preserving its biodiversity.
- Conservation efforts should focus on preserving critical areas of the rainforest.

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

鹿裝
空山不見人，
但聞人語響，
返景入深林，
復照青苔上

Deer Park
In the Wang Wei poems "Deer Park," the landscape tells the story. Wang is just a silent observer of the sounds and sights of nature. In reading the words, one can visualize the shape of the mountains, hear the echo of a stream flowing through the wind, and feel the sun on the trees. His poems are calligraphy of shapes, words, and textures that are simply told in a few words.

Western translations of classical Chinese poetry can be attributed to Ezra Pound's landmark anthology "Taoism," published in 1915. This was the first major western poet to have been translated into English. Since then many others have added their interpretations of Wang Wei's poems "Deer Park."

Deer Fence
Empty hills, success in sight, 
Only the sound of crows taking
Sunlight from the text
Flowers bloom in the snow

The Deer Park
An empty hill, no one in sight, 
But I hear the sound of voices.
The starting sun of morning penetrates the deep woods.
And its reflection on the blue sky.

The Foam of the Deer
No longer the falls, there is no one to see them.
But silence is the voice of nature I hear.
The echo of the sweet piano reaching the forest.
And its reflections, green woven appear...
**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, being 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 plaques in the brain which causes the degradation of memory.