

SCIENCE

THE Arts

S Y N T H E S I S

PROPOSAL SPONSORED BY:



SCIENCE + THE Arts SYNTHESIS

Purpose: To develop interdisciplinary opportunities for students at Thiel College. To utilize the Haer Family Science Connector as an academic and exploratory bridge between the Arts and the Sciences with the creation of a special program for students.

Concept: An annual themed competition with a 1st, 2nd and 3rd place award where students team up to produce work with two representations: The Arts and The Sciences.

What do we call it?

Science + the Arts Synthesis: An Interdisciplinary Competition

Mission Statement: The mission of the Science + Art Synthesis Annual Competition is to provide a rich interdisciplinary experience complementing and challenging the student's liberal arts pursuit.



Biology • Poetry • Neuroscience • Dance • Chemistry • Painting • Environmental Science • Sculpture

SCIENCE+^{THE}Arts SYNTHESIS

DETAILS

Theme: The annual theme should be determined by the beginning of each Spring Semester for the prior to the next competition's submission deadline in the Fall Semester. The theme should be general in nature as to evoke a multiplicity of solutions, yet specific enough to address a relevant issue. The theme should be determined by the Faculty designated as judges of the current competition for next year's competition.

Prize: The student(s) may choose to accept their award either as cash or scholarship.

- a. 1st Place Award - \$2,000
- b. 2nd, Place Award - \$1,250
- c. 3rd Place Award - \$500

Deadlines: The following 2018 - 2019 list of deadlines can be replicated and/or added to for each consecutive year.

Friday, March 30, 2018: Judges Panel Invitation Sent with RSVP Wednesday, April 11, 2018

Monday, April 16, 2018: Official competition introductory announcement to faculty and beginning of advertising campaign.

Friday, September 14, 2018: Submissions Open

Friday, September 28, 2018: Submissions Close

Friday, October 12, 2018: Workshop

Monday, December 10, 2018: Check-In 1

Monday, February 25, 2019: (2019-2020) Judges Panel Invitation Sent with RSVP by Wednesday, March 6, 2019

Monday, March 25, 2019: (2019-2020) Theme announced

Friday, April 5, 2019: Check-In 2

Friday, May 3, 2019: Presentations Open

Friday, May 10, 2019: Awards Ceremony

Friday, June 7, 2019: Presentations Close

Participation Eligibility: This competition is open to any undergraduate student who is currently enrolled in courses at Thiel College. Students may participate on an individual or group level.

Additional Instruction: The rotating judges panel made up of faculty will also provide guidance for the students as they prepare their work.

Launch: This competition will begin in Fall 2018 open to Thiel College faculty in order to test its viability, work out any technical or formatting issues, and to provide concrete examples of the direction a student could take it. The competition would then move into its final phase, open to student in Fall 2019. This has the potential of being opened up on a regional and state level, as well as adding a High School category for entry.

CRITERIA

The judges of this competition use the following to evaluate all aspects of the projects and presentations:

- **Scientific importance:** Does the project address an important scientific, technical, or mathematical question or major issue? Does the student's work demonstrate a high level of intellectual input, and is it innovative? Do the findings substantially add to the understanding of the area investigated?
- **Creativity:** Is the project original and imaginative? What is the origin of the student's interest in the topic? Did the student develop new solutions or procedures? To what extent were the student's talent and insight incorporated into the project? How did the student address any surprising or unforeseen developments?
- **Field knowledge:** Does the student demonstrate strong knowledge of the area of inquiry and the underlying scientific or mathematical issues?
- **Comprehensiveness:** Are sufficient details given so that others can replicate the work? If the work is experimental, are the variables and controls clearly defined? Did the student use the correct quantitative measures? Are the procedures well-defined? Were tools for measurement and analysis chosen and used appropriately? Does the Research Report fully explain the project itself or is further explanation needed?
- **Interpretation:** Has the student stated the interpretations and conclusions clearly? How scientifically reasonable and credible are the data, interpretations, and conclusions? Do the conclusions and interpretations follow from the results presented? Are appropriate statistical tests employed, if appropriate? Can claims of novelty or improvement be justified? What are the limits of the interpretations and the conclusions? Are there alternative conclusions that fit the results?
- **Literature review:** Does the report reference appropriate related works and place the study in a proper context? Are all sources used in the research listed as references? Are the references cited within the text?
- **Future work:** Is there a discussion of future or follow-up research? If so, what further data would be needed? What are possible applications of the work?
- **Clarity of expression:** Is the project understandable? Is the material presented logically and coherently? Are the key points, problems, and solutions stated clearly and precisely? Does the student use tables and figures appropriately, including correct labeling? Was the Research Report carefully proofread for spelling and grammar? Is the Art Representation cohesive with the Research Report? Does the Art Representation consider composition?
- **Presentation:** Is the method of presentation consistent with the nature of the work and with scientific practice in the discipline involved?
- **Teamwork:** Is it clear how each member contributed? Was there an appropriate distribution of workload and responsibilities? All team members must have active roles in the design, execution and delivery of results of the research submitted to the Siemens Competition and have made a substantial contribution to the effort.

<https://siemenscompetition.discoveryeducation.com/judging/criteria>

Guidelines for the DHI Theses should be utilized as a resource in building presentation criteria as well.