ENGINEERING COMMUNICATION PROGRAM

UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

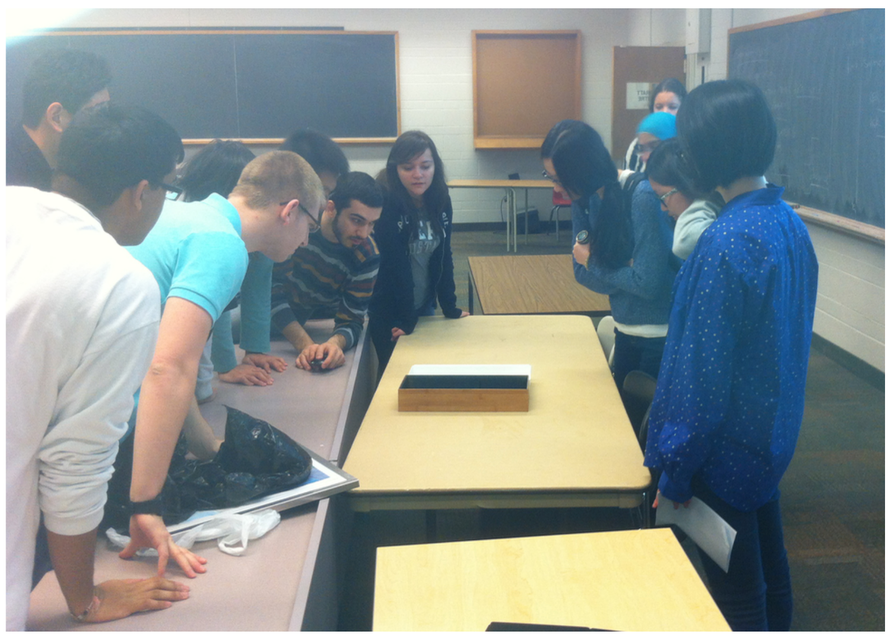
INSTRUCTOR:
Ken Tallman

APS325: ENGINEERING AND SCIENCE IN THE ARTS

This course aims to advance students' knowledge of art and its connections to engineering and science. Students gain knowledge of selected artists and artistic movements, the theoretical foundations associated with these artists and movements, and an understanding of the ways in which engineering and science are associated with their development.

By the end of the course, students should be able to:

- Identify works of art from different periods and understand how these works are connected to engineering and science;
- Interpret works of art using different theoretical frameworks;
- Create and present an original work of art using the theoretical frameworks learned in class.



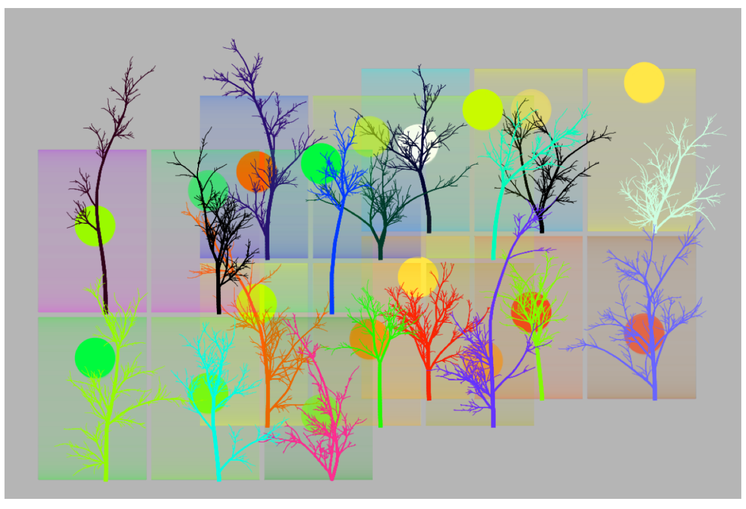
INTERSECTIONS:

Earth Art
Sound
Pointillism
Experimentation
Interactive Environments
Nano Art
Materials
Technology
Mathematics
Perspective
Modernism
Sculpture
Futurism
Creativity
Post Modernism
Transformation
Mimesis
Geodesic
Manufactured Landscapes
Medicine
Architecture
Light
Chaos Theory
Pigment
Motion
Cubism
Quantum
Chance
Jazz
Dada
Circus
Immersive Environments

READINGS:

- Plato's attack on art
- Aristotle's defence
- Leonardo's notebooks
- Apollinaire on Cubism
- J. Burnham, *Beyond Modern Sculpture*
- Susan Sontag, *Against Interpretation*
- Dean Simonton, *Creativity in Science*

STUDENT WORK:



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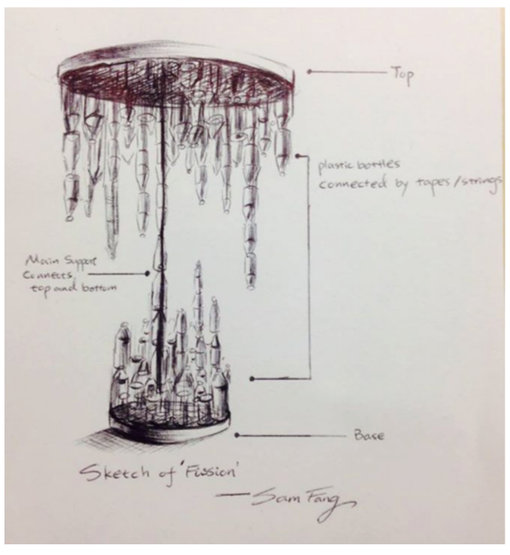
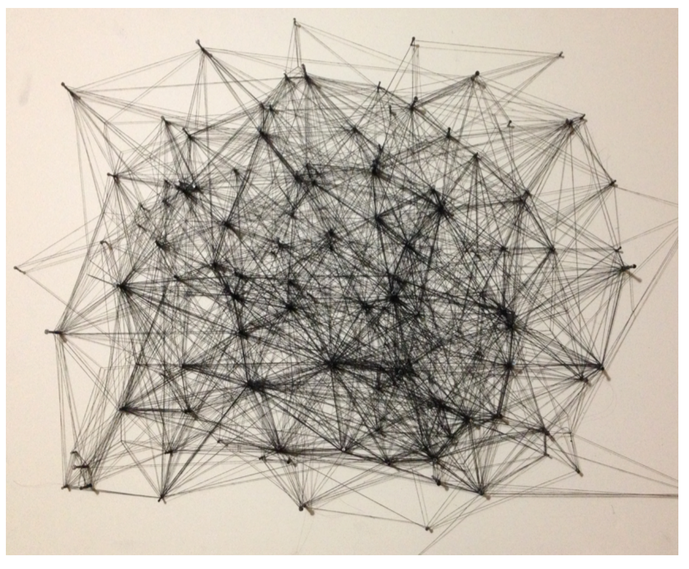


Fission



Information Cloud

The Turtle Swims

DELIVERABLES:

Each student creates a work of art and presents it to the class. Additionally, each student gives two seminar presentations, writes a critique of an art work studied at a class field trip, and keeps a journal throughout the course.

Pr Students propose to create individual works of art connected to engineering or science.

Jr Students keep personal journals that document all course activities.

P Students present their works of art to the class.

R Students write a report that further explains the art theory behind their works of art.

A Students analyze a work of art observed during a class field trip.

S Students give two seminar presentations.

Seminar topics have included:

- Constructivism
- Ai Weiwei
- Earth Art
- Marcel Duchamp
- Bauhaus
- Leonardo
- Quantum Mechanics
- Cubism

FEEDBACK:

"I'd forgotten how it felt like to actually sit down in group of <20 and discuss topics where opinions and questions are actually encouraged."

"It inspired thought and discussion… It's awesome to have hands on projects (the final assignment) where we get to create something by using our engineering knowledge and at the same time being artistic about it."

"Best course I've taken at U of T so far, and I'm not just saying that because this course has no mid-term/final exam."

"Unlike my other engineering classes, I did not have to drag myself to attend classes for APS325 since I actually enjoyed learning about the new topics introduced by the Prof. and my classmates in lectures and tutorials."