The Course of Computer Graphic Design
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This course introduces students to the field of Computer Graphic Design that originated from America in 1950. The study on computer graphics is within the range of aesthetics and computation.
PART I: ABOUT HISTORY

Week One
Day of the week, Month and date – class description
—— (1950–1970) The study of the birth of computer graphic arts which is mainly influenced by Abstract Art rising in 20th century from the point of ideology.
Website: http://www.dam.org (The websites of Digital Arts Museum)
Assignment: case study of the earliest computer artist and works in America

Week Two
Day of the week, Month and date – class description
—— (1970–1990) The study of relationship among computer graphic arts and Surrealism. Such as experiments on graphic special logic changes, dreams and images as well as occasional graphics.
Readings: Scott Rothkopf, Surrealism USA, Hatje Cantz Publishers, 2005
Assignment: case study of Dali and Margaret
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Ben Laposky was a mathematician and artist from Cherokee, Iowa, US. He was the earliest computer art innovators. In 1950, he created the first graphic work in the world.
Phase 1 The Pioneers from 1956

Yoshiyuki Abe
Paul Brown
Harold Cohen
Charles Csuri
Ernest Edmonds
David Em

Herbert W. Franke
Laurence Gartel
Sue Golllifer
Jean-Pierre Hébert
Yoichiro Kawaguchi
Kenneth Knowlton

Ben F. Laposky
Ruth Leavitt
Manfred Mohr
Vera Molnar
Frieder Nake
Georg Nees

A. Michael Noll
Lillian Schwartz
Rejane Spitz
Joan Truckenbrod
Roman Verostko
Norman White

John Whitney Senior
Mark Wilson
Edward Zajec
## Plotter Drawings from the 1960s

<table>
<thead>
<tr>
<th>Noll: Practice</th>
<th>SineCurve Man</th>
<th>No title</th>
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<tbody>
<tr>
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<tr>
<td>Charles Csuri</td>
<td>Vera Molnar, No title, 1968, plotter drawing, +/- 7.5 x 7.5 cm, artist's own collection</td>
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<tr>
<td><em>SineCurve Man</em> Plotter Drawing 1967</td>
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<tr>
<td>Vera Molnar, No title, 1968, plotter drawing, +/- 16 x 14.5 cm, artist's own collection</td>
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<tr>
<td>Vera Molnar, No title, 1968, plotter drawing, +/- 7.5 x 7.5 cm, artist's own collection</td>
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<tr>
<th>Interruptions</th>
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<th>&quot;ram2/9&quot;</th>
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<td><img src="image7.png" alt="Image" /></td>
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<td><img src="image9.png" alt="Image" /></td>
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<tr>
<td>Vera Molnar, <em>Interruptions</em>, 1968/69, open series, 28.5 x 28.5 cm</td>
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<tr>
<td>Vera Molnar, <em>Interruptions</em>, 1968/69, open series, plotter drawing, 28.5 x 28.5 cm</td>
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<tr>
<td>Edward Zajec &quot;ram2/9&quot; 1969 plotted drawing</td>
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</tbody>
</table>
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Part I: About History

Week Three
Day of the week, Month and date – class description
—— The study of the process that American software became the milestone for democratization of technology in China. (1990s)
Website: http://www.adobe.com
Assignment: case study of the history of Adobe software

Week Four
Day of the week, Month and date – class description (1990s)
—— The influence on traditional photography from modern digital techniques
Readings: 3 papers
Assignment: case study of modern darkroom techniques
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Part II: About Creative practice

Week Five

Day of the week, Month and date – class description
— The study of the Arts of digital light
Readings: www.nopattern.com
Assignment: case study of light effects created from physical way and digital software

The curiosity of light track is the starting point of computer graphics
Part II: About Creative practice
Week Five: The study of the Arts of digital light

Kaskade, the most popular singer in America, His album in 2008 express the essence of music through the digital light.
The posters of film Jumper, the man was in sharp and linear motion of the digital light.
This is a very special form of art that called "light painting", it is also known as the "light graffiti", light graffiti is a record of light moving track.
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The virtual light in Product design and type design
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New materials, product design, expand student’s thinking.

Every day when sunset, it can sensitively sense the surrounding darkness falling and automatically lights. Soft light makes people feel a sense of peace.
I don’t think the computer is in conflict with handmade works, so I combine them in my class.
The principle of **Luminous material** is very simple, absorbing light in daytime, in the dark will automatically shine, in this cycle, the service life of up to seven years.
The concept of vector (Bazier) first released by Apple Corp in 1985.
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Graphics are mainly composed of mathematical dots, lines and shapes filled with color.

This is an old photography of Marlon Brando.
Redesign it into a new vector illustration
**Part II: About Creative practice**

**Week Seven**
Day of the week, Month and date – class description
——The study of the combined design of sound and image, including the easily neglected conscious auditory sense in other fields
Readings: PPT
Assignment: case study of audiophotography

**Week Eight**
Day of the week, Month and date – class description
——The study of the illustration styles in America (The Cross-culture understanding )
Readings: PPT
Assignment: case study of styles of modern digital illustration

**Week Nine**
Day of the week, Month and date – class description
——The study of the illustration in Europe and Asia
Readings: PPT
Assignment: case study of styles of modern digital illustration
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Part II: About Creative practice
Week 6: The study of the Information Graphics

Week Ten

Day of the week, Month and date – class description
— The study of the Information Graphic Design
Readings: PPT
Assignment: case study of modern information design of America

Information design
<table>
<thead>
<tr>
<th>Sunburst</th>
<th>Node-Link Tree</th>
<th>Treemap</th>
<th>Voronoi Diagram</th>
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<tr>
<td>Hierarchical Edge Bundling</td>
<td>Voronoi Diagram</td>
<td>Symbol Map</td>
<td>Parallel Coordinates</td>
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<td><img src="image8.png" alt="Image" /></td>
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<tr>
<td>Scatterplot Matrix</td>
<td>Zoomable Pack Layout</td>
<td>Hierarchical Bars</td>
<td>Epicyclical Gears</td>
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<td><img src="image11.png" alt="Image" /></td>
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<tr>
<td>Collision Detection</td>
<td>Collapsible Force Layout</td>
<td>Force-Directed States</td>
<td>Azimuthal Projections</td>
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POLITICAL INFLUENCE

This visualization looks at the monetary contributions made by the top 20 Political Action Committees (PAC) for the 2012 congressional election cycle, both for the House of Representatives and the Senate. The goal was to depict how intertwined special interests groups and our political representatives are.
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Part II: About Creative practice
Week 11: The study of dynamic picture, motion graphic

Week Eleven
Day of the week, Month and date – class description
——The study of the dynamic picture, motion graphic,
motion poster and animation
Readings: PPT
Assignment: case study of motion graphic of America
PART III: ABOUT CRITICAL THEORY OF COMPUTER ARTS

Week Twelve
Day of the week, Month and date – class description
— Making a comparison on the characteristics of Image, graphic, video, animation, motion-graphic and dynamic pictures as well as their influence on human psychology
Readings: PPT
Assignment: case study of different kinds of creative design

Week Thirteen
Day of the week, Month and date – class description
—– The study of the collision of computer technology and art.
Readings: 3 papers
Assignment: case study of emphasis and overflow of technical language in commercial design

Week Fourteen
Day of the week, Month and date – class description
—– The discussion on how authentic technology also satisfy people’s aesthetic purpose
Readings: 3 papers
Assignment: case study of innovations which including advertisements, video arts, public interaction, event, and so on.

Week Fifteen
Day of the week, Month and date – class description
—– The critical thinking about the computer art and traditional handcraft works.
Readings: 2 books
Assignment: case study of modern watercolor works

Week Sixteen
FINAL EXAM
Learning Goals:

At the end of this course, students will be able to:

1) learn to know the history of computer graphic art in America and its influence on Chinese art design.
2) Learn the creative skills of computer graphic design
3) have understanding of different design styles and reflection on different culture
4) develop a critical analyze of new problems in digital arts
Mac Advertising: Thank different

The ones who see things differently
about the only thing you can’t do is to ignore them
because they change things
and while some see them as the crazy ones
we see genius
because people who are crazy enough to think
they can change the world