

Greetings! Because of surgery, class will be held online in MS Teams August 25-September 15. Starting September 15, class will meet on campus in ATC 2.705E, the EODIAH seminar room.



An image from a Hoover catalog in the 1920s. A woman wears a mask that measures her carbon-dioxide exhalation while she vacuums, in order to assess how much energy she is expending. The catalog promises that “Hoover offers the least fatiguing way of cleaning carpets and rugs.” The absurdity of the image is amusing and inspiring of science fictions. From the Smithsonian Libraries’ Trade Literature Collection.

**VPAS 7380-001 (87662)
Art, Nature, and the Machine
Dr. Charissa N. Terranova
We 4-6:45 pm ATC 2.705E**

**Contact: terranova@utdallas.edu
Office Hours: Wednesdays 2-3:30 and by
appointment
Office Location: ATC 2.704**

Description:

This class explores the creative possibilities of automation in art and design. It studies how humans over the last 2,000 years have conceptualized technology and the machine *not* as the antithesis of *but* a means to better understand nature and the living. In particular, our focus will be on machine interfaces with the living, both human and nonhuman. We will follow the path from automata to automation, robots to second-order cybernetics, and the single subjectivity to systems subjectivities. Our attention will be on authors, artists, and designers who have called on machine-thinking and actual machines to know and comprehend nature and biology. We take this tack in order to better think about remediating the Anthropocene – human-made environmental and natural catastrophes.

Requirements:

Students are required to attend all classes, complete readings, participate in class, make one in-class presentation based on the reading assignments while also leading class in discussion, submit one short essay in conjunction with this presentation, and make a final presentation based on a final research paper.

Goals:

- Students will improve public speaking skills.
- Students will improve expository writing skills.
- Students will research in depth a topic pertaining to art, nature, and the machine.
- Students will learn about works of art and architecture that explore machine-thinking and the Anthropocene.

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Mode of Class:

Class will be held online in MS Teams until September 15. Starting September 15, class will meet on campus in ATC 2.705E, the EODIAH seminar room. From that time forward, standard attendance rules apply. These are the following: **Students are allowed one unexcused absence after which each absence will result in the lowering of the final grade by one full letter. Students with illnesses that require extended periods of absence are encouraged to officially withdraw from the class.**

Assignments:

1.) Leading In-Class Discussion: One Short Paper and One In-Class Presentation

Students will write and present one 1000-word paper based on the week's reading assignments. Each paper should summarize the reading and student presentation, relating it to relevant art, architecture, or design. Your presentations should be made using powerpoint, catalyze discussion about the reading, provide biographical information about the author(s) where possible, and explain salient ideas of the reading to the class. Papers should be:

- 1000 words in length
- double spaced
- titled; title in italics centered at top of page one
- heading with course name and number, professor's name, and student's name left-hand justified
- paginated
- 12-pt font
- include footnotes and a bibliography
- The presentation should include a powerpoint with related works of art and/or architecture.
- Due – Students are responsible for presentations in accordance with sign-up sheet; papers are due one week after in-class presentation.

2.) Long Paper and Final Presentation

Students will write a 17- to 20-page research paper on a topic discussed with and approved by the professor. The topic should both come from the material in class and, if possible, relate to the student's overarching research goals as a graduate student at the university. Papers should be:

- 17- to 20-pages in length
- double spaced
- include a title page and a title
- paginated
- 12-pt font
- include footnotes and a bibliography with at least five sources
- 30-minute presentation: PowerPoint and Discussion
- Final Paper Due 5 pm December 13

Grades:

Leading In-Class Discussion: Presentation + Paper:	40%
Final Paper: Presentation + Paper:	40%
General Class Participation:	<u>20%</u>
	100%

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Attendance Policy and Requirements:

Students are required to attend every scheduled seminar meeting, complete the assigned reading prior to class, and participate with verve and gusto in seminar discussions. Students are allowed one unexcused absence after which every unexcused absence will result in a deduction of ½ grade in the computation of the final mark.

Standard UTD policies regarding classroom behavior, religious holidays, withdrawals, etc.:

<http://www.utdallas.edu/deanofstudents/conductguidelines.html>

Reading:

The reading assignments come from books and essays. All readings are available through the university library's reserve system. These documents are available digitally at elearning or as hard copies in the library. The following books may be purchased for the course:

- 1.) Adrienne Mayor, *Gods and Robots: Myths, Machines, and Ancient Dreams of Technology* (2018)
- 2.) E.R. Truitt, *Medieval Robots: Mechanism, Magic, Nature, and Art* (2016)
- 3.) Jessica Riskin, *The Restless Clock: A History of the Centuries-Long Argument over What Makes Things Tick* (2018)
- 4.) Rossi Braidotti, *The Posthuman* (2013)
- 5.) Bruce Clarke, *Gaian Systems: Lynn Margulis, Neocybernetics, and the End of the Anthropocene* (2020)

Schedule:

August 25 Introduction: Meet and Greet, Sign-up for Presentations, and Discussion of the Robotic Inhuman and Design as Biology

Readings:

- 1.) Jennifer Rhee, "Introduction: All Too Dehumanized," in *The Robotic Imaginary: The Human & The Price of Dehumanized Labor*, 1-29 (2018)
- 2.) Robert Bud, "The Engineering of Nature," in *The Uses of Life: A History of Biotechnology*, 51-79 (1993)

September 1 Automation and Robots in Antiquity

Reading: Adrienne Mayor, *Gods and Robots: Myths, Machines, and Ancient Dreams of Technology*, 7-32; 61-84; 256-278 (2018)

September 8 Medieval Robots

Reading: E.R. Truitt, *Medieval Robots: Mechanism, Magic, Nature, and Art*, Chapters 1 and 5 (2016)

September 15 Early Modern Automata

Reading: Jessica Riskin, *The Restless Clock: A History of the Centuries-Long Argument over What Makes Things Tick*, Introduction and Chapter 4 (2018)

September 22 Agencies between Robots and Cyborgs

Reading:

- 1.) Karel Capek, *R.U.R. (Rossum's Universal Robots)* (1920)

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- 2.) Manfred Clynes and Nathan Kline, "Cyborgs and Space" (1960)
- 3.) Donna Haraway, "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century" (1985)
- 4.) Leilani Nishime, "The Mulatto Cyborg: Imagining a Multiracial Future" (2005)

September 29 Biology, Machines, and the Bauhaus

- 1.) Raoul Francé, *Germes of Mind in Plants* (1905)
- 2.) Oliver Botar, "The Biocentric Bauhaus," *The Routledge Companion to Biology in Art and Architecture* (2016)
- 3.) Detlef Mertins, "Where Architecture Meets Biology: An Interview with Detlef Mertins" (2007)
- 4.) Detlef Mertins, "Bioconstructivisms" (2004)

October 6 Art and Mechanical Reproduction

Reading: Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction" (1935) in *Illuminations: Essays and Reflections*, 217-252.

October 13 Medium, Media, Mediation

Reading: Marshall McLuhan, *Understanding Media* (1964), ed. Lewis Lapham (Cambridge, MA: MIT Press, 1994) 3-76.

October 20 Cybernetics

Reading:

- 1.) Norbert Wiener, "On Learning and Self-Reproducing Machines," *Cybernetics, or Control & Communication in the Animal and Machine* (1961 edition), 169-180 (1948/1961)
- 2.) Norbert Wiener, *God and Golem: A Comment on Certain Points where Cybernetics Impinges on Religion* (1964)
- 3.) Peter Galison, "The Ontology of the Enemy: Norbert Wiener and the Cybernetic Vision" (1994)
- 4.) Norma Contrada, "Golem and Robot: A Search for Connections" (1995)

October 27 Posthumanism: Getting beyond Anthropocentrism

Reading:

- 1.) N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*, 50-112 (1999)
- 2.) Rossi Braidotti, *The Posthuman*, 13-104 (2013)
- 3.) Mira Kallio-Tavin, "Art Education Beyond Anthropocentrism: The Question of Nonhuman Animals in Contemporary Art and Its Education" (2020)

November 3 Gaian Systems and Second-Order Cybernetics/Neocybernetics

Reading: Bruce Clarke, *Gaian Systems: Lynn Margulis, Neocybernetics, and the End of the Anthropocene*, 23-138, 157-182 (2020)

November 10 Final Presentations

November 17 Final Presentations

November 24 Fall Break – No Class

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December 1 Final Presentations

December 13 Final Essays Due