This course is a graduate seminar focusing on the history of biology in art and design. It traces biocentrism – a biology-based philosophy of the oneness of art and science – from the late nineteenth century to the present within the greater world of art. It focuses on the work of nineteenth-century naturalists Ernst Haeckel and Raoul Francé, twentieth-century Bauhauslers Walter Gropius, Ludwig Mies van der Rohe, and Lászlo Moholy-Nagy, mid-twentieth-century cybernetic thinkers and designers Roy Ascott, Gordon Pask, and Cedric Price, and contemporary bioartists and architects designing with synthetic biology. The class brings to the fore the lesser known pedagogy of biofunctionalism within the Bauhaus, comparing it to New Objectivity Bauhaus functionalism. Readings trace the diasporic spread of this Bauhaus biofunctionalism across the United States in the twentieth century onto an international stage in order to locate its transformed presence in contemporary bioart and bioarchitecture, both of which use living material as a "medium." The course covers architectural modernism, General Systems Theory, cybernetics, mid-century utopian biotopic architecture, genetics within art and design, and contemporary bioart and bioarchitecture.

Assignments:

1.) **Class Leadership Exercises**
Each student is required to lead the seminar in discussion of the readings **twice**. Students should come to class prepared with a list of guiding themes or questions to lead discussion.

2.) **Class Presentation of Final Project**
Each student will present the thesis statement of and research toward his/her final written assignment in a 30 to 45-minute presentation at the end of the semester. PowerPoint presentations are optional but ADVISED.

3.) **Final Written Assignment**
The final written assignment is a research paper based on a philosopher, critic, artist, film, or work of literary fiction. Your paper should have a thesis statement – an argument – based on your research. I encourage you to meet with me during office hours (or otherwise) to discuss
your interests and passions in relation to this topic. The requirements for the research paper are as follows:

- title page, 10-12 pt. font, standard margins
- thesis statement in the body of text on the first or second page
- 20 pages
- pagination
- foot- or endnotes
- bibliography with 8 sources, of which 2 can be websites

Readings:
The readings are available in the form of books for purchase or at the DOCUTEK link below made accessible by way of the password also listed below.

Books for purchase:


Password: design

Grades:
Class Leadership Exercises (15% x 2) = 30 %
Class Presentation of Final Project = 30 %
Final Written Assignment = 40 %
Total = 100%

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
Readings and Seminar Schedule:

**Tuesday August 22**
Welcome, Introduction to Ideas and Terms, Sign-up for Presentations
- Screening of *Proteus* (2004), a documentary about Ernst Haeckel

**Tuesday August 30**
Biocentrism, Art, and Design: Raoul Francé and the Seeds of Bioconstructivism at the Bauhaus
- Detlef Mertins, “Where Architecture Meets Biology: An Interview with Detlef Mertins,” http://repository.upenn.edu/cgi/viewcontent.cgi?article=1006&amp;context=arch_papers
- Detlef Mertins, “Bioconstructivisms,” http://repository.upenn.edu/cgi/viewcontent.cgi?article=1036&amp;context=cplan_papers

**Tuesday September 6**
Bauhaus Functionalisms: Between New Objectivity and Biofunctionalism

**Tuesday September 13**
Bauhaus Design and Ecology

**Tuesday September 20**
Morphogenesis, Art, and Design: D’Arcy Wentworth Thompson

**Tuesday September 27**
Genetics, Modernism, and the Historic Avant-Garde

**Tuesday October 4**
The Epigenetic Landscape, Art, and Design: Conrad Waddington

**Tuesday October 11**
Biology, Systems, Art, and Aesthetics

**Tuesday October 18**
Systems, Cybernetics, and Architecture

**Tuesday October 25**
Systems, Cybernetics and Conceptual Art

**Tuesday November 1**

**Biotologies of the Neo-Avant-Garde: Hans Haacke, Joseph Beuys, Marcel Broodthaers, et. al.**

**Tuesday November 8**

**Genetic, Computation, and Art**

**Tuesday November 15**

**Welcome to Biohaus: Bioart and Bioarchitecture in the 21st Century**

**Tuesday November 22**

Fall Break/Thanksgiving

**Tuesday November 29**

Student Presentations

**Tuesday December 6**

Student Presentations

**Monday December 12**

Final Essay Due