EDPX 3701/4701 EDP Topics, Making: Biomedia
Spring 2016, MW, 9AM - 11:50PM
Website: <http://www.du.edu/~tweaver2/edpx3701/>
Instructor: Timothy Weaver <tweaver2@du.edu>, 303.871.3279
Shwayder Art Building, 213, office hrs, W 2PM to 5PM

:: o v e r v i e w ::
This EDP topics course will survey and investigate the interplay between new media, biological systems and technologies as they relate to the creative inquiry at the juncture of the life sciences, digital formatting and contemporary technoculture. The course will build upon the basic paradigms and platforms of biosemiotics and biomimetics to expand into a coverage of our framing of corporeality, biological/environmental sensibilities and our perceptions and interconnections with biomaterials and lifeforms that we exist thru and within.

From this point of reference we will then expand onward toward the bi-directional scales of the biospheric and the molecular as points-of-study for dialogue and reference exchange in the cross-bred domains of biological and technological systems. Through each of these levels of study, representation will be given to theory, critical context, technology, and reduction to creative practice as linkages between the topics of new and biomedia we will be discussing. The coverage of this course is intended to act as a scholarly platform for creative inquiry/critical dialogue into biomedia literacy and bio/technoethics as a comparative to emerging forms of technocultural impact and creative expression.

COURSE OBJECTIVES
:: t h e o r y ::
:: Introduce and expand the theoretical concepts and processes that characterize the intersecting domains of new media and biomedias;
:: c o n t e x t ::
:: Build insight into the technocultural and bioethical contexts which define the environment of biomedia access, interpretation and applications;
:: t e c h n i q u e ::
:: Characterize the diversity of tools and technique that exemplify and expand the theoretical base and language of biomedia;
:: Perpetuate the knowledge train and access to these tools and techniques to root experimentation, artistic process and intuition for developing future works;
:: c r i t i c a l d i a l o g u e ::
:: Expand the language for the enablement of critical dialogue, analysis of works, expansion of biomedia manipulation and exchange of ideas and criticism;
:: Charge this environment with an atmosphere that challenges the dualistic assumptions of art and non-art;
:: Foster a collective diversity of criticism that promotes experimentation, research, and affirmation of new creative thought, identity, and possibilities;
:: n e t w o r k ::
:: Develop an inclusive group environment for the questioning, discussion, and exploration of the potential directions and fate of contemporary new media artists and
their work for the near future;
:: Cultivate a symbiotic educational relationship among class participants which includes internal mentoring, bottom-up input, and collaborative materialization of work;
:: Initiate a collaborative and cooperative network among class participants for future creative endeavors outside the academic institution; and
:: resource::
:: Provide utilitarian resources as survival tools for the continuation of future artmaking endeavors from this group network.

COURSE POLICIES
In order to meet course objectives the following requirements are critical to the attainment of an inclusive environment that is supportive to all participants:

Attendance
Attendance is mandatory. 3 unexcused absences constitutes the drop of 1 letter grade for the course (3 lates=1 absence). An unexcused absence from any critique or critique segment will constitute the immediate drop of 1 letter grade for the course. Non-attendance at final critique/project presentation results in failing grade (F) for course.

Participation
Active and supportive participation in all project critiques, discussions, and presentations will be expected from all group members.

Quality of Work
All creative work under consideration for critique or discussion under this course should be of a completed/finished quality that warrants the attention and respect of your cohorts. No excuses, or explanations.

Grading
Work will be graded on the basis of fulfillment of course requirements combined with an assessment of assigned work. This assessment will be weighed in terms of degree of effort, creativity, and individual growth through the session. Grades will be assigned according to the University Policy as follows:
A superior/excellent
B good/better than average
C competent/average
D minimum passing
F failing

PROJECTS
SUPPORT MATERIALS
As support to the collaborative environment of this seminar the following will be maintained and sustained for reference throughout the session and established for future exchange with colleagues:
1) Personal media blog will be maintained as an assignment research and resource site

Projects & creative output
We will be producing work throughout the quarter as manifestations of biomedia as 2 minor projects and 2 major projects.
Minor projects.
1) Minor project #1 will focus on **biosignaling**, 'listening', bioacoustics and animal communication.
2) Minor project #2 will focus on connecting **bioacoustics to biosensing**.

Major projects
1) Major project #1 will focus on **biosensing and biorobotics**.
2) Major project #2 will be a group project implementing an **open source beehive** at DU.

TEXTS AND READINGS
Assigned readings
Reading assignments will be made from the schedule page of the course website and via online sources. Linked articles on the schedule page correspond with discussion date.

Reference texts
The following texts are suggested sources for expanded reference, discussion and consultation for research and further study.

General paradigms
"Simulation and Simulacra", Jean Baudrillard, 1994, Univ. of Michigan Press
"A Thousand Plateaus- Capitalism and Schizophrenia", Deluze & Guattari, 1987, Univ. of Minnesota Press
"Global Brain", Howard Bloom, 2000, Wiley & Sons

Biomedical specifics
"The Molecular Invasion", Critical Art Ensemble, 2002, Autonomedia
"Junkware," Thierry Bardini, University of Minnesota Press, 2011
"Insect Media: An Archaeology of Animals and Technology", Jussi Parikka, 2010, Univ. of Minnesota Press
### Schedule: EDPX 3701/4701, EDP Making: Biomedia, Spring 2016

<table>
<thead>
<tr>
<th>Week 1a (3/21)</th>
<th>Think</th>
<th>Course Introduction  &gt; Instructor</th>
<th>Student Introductions  &gt; Overview: Bioculturalism, Biomedia, to Biodesign  &gt; Resources</th>
<th>ALL ASSIGNMENTS FROM COURSE WEBSITE SCHEDULE PAGE</th>
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<tbody>
<tr>
<td>Week 1b (3/23)</td>
<td>Make</td>
<td>&gt; Software Basics 1  &gt; Wetware vs. Dryware  &gt; Synthetic Biology 1  &gt; History of Biodesign</td>
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<td>Week 2a (3/28)</td>
<td>Think</td>
<td>&gt; Paradigms &amp; Platforms  &gt; Simulation &amp; Simulacra  &gt; Biophilia  &gt; Bioethics  &gt; Superorganism/Rhizome/Ontogeny  &gt; Insect Media &amp; Cybernetics  &gt; Biosemiotics</td>
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<td>Week 2b (3/30)</td>
<td>Make</td>
<td>&gt; Biomimicry - Intro  &gt; Swarms &amp; Collective Behavior  &gt; Bioacoustics 1  &gt; Biosignaling 2</td>
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<td>Week 3a (4/4)</td>
<td>Think</td>
<td>&gt; Cell and Developmental Morphologies  &gt; Circadian Time  &gt; Biological Space  &gt; Sims &amp; A-Life</td>
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<td>Week 3b (4/6)</td>
<td>Make</td>
<td>&gt; Bioacoustics Recording &amp; Analysis  &gt; Composition</td>
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<td>Week 4a (4/11)</td>
<td>Think</td>
<td>&gt; Corporeality, Intelligence &amp; Presence  &gt; Flesh Machines &amp; Bio/BODY Politics  &gt; Neuro-Transmissions  &gt; Bio-Networks  &gt; Biosignalling &amp; Pheromones</td>
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<td>Week 4b (4/13)</td>
<td>Critique</td>
<td>&gt; Bioacoustics and Composition</td>
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<td>Week 5a (4/18)</td>
<td>Think</td>
<td>&gt; Lifeform Interactions  &gt; Zoosemiotics, Actions &amp; Reactions  &gt; Predation and Infection</td>
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<td>Week 5b (4/20)</td>
<td>Make</td>
<td>&gt; Biosensing  &gt; Biphysical Interactions</td>
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<td>Week 6a (4/25)</td>
<td>Think</td>
<td>&gt; Environmental Dynamics &amp; Sensibilities  &gt; Eco-System Modeling &amp; Abstractions  &gt; Transcoding</td>
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<td>Week</td>
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<td>6b (4/27)</td>
<td>make</td>
<td>transcoding 2</td>
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<td>molecular to cultural expressions</td>
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<td>7a (5/2)</td>
<td>think</td>
<td>biomolecules</td>
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<td>genetics, genomics, genetic algorithms</td>
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<td>biotech hobbyists</td>
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<td>biomimetic design</td>
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<td>7b (5/4)</td>
<td>critique</td>
<td>biorobots &amp; biosensing critique</td>
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<td>8a (5/9)</td>
<td>think</td>
<td>biorobots &amp; biosensing critique/ recap</td>
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<td>8b (5/11)</td>
<td>critique</td>
<td>software/trancoding studio session</td>
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<td>open source beehives &amp; sensing &amp; networking</td>
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<td>9a (5/16)</td>
<td>think</td>
<td>hive sounds</td>
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<td>transcoding: studio session -&gt; viz</td>
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<td>9b (5/18)</td>
<td>make</td>
<td>Transcoding: studio session</td>
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<td>10a (5/23)</td>
<td>critique</td>
<td>Final Presentation of transcoding works</td>
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<td>10b (5/25)</td>
<td>final meeting</td>
<td>:: Final Presentation of transcoding works</td>
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<td>critique</td>
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<td>FINAL (5/28)</td>
<td>10-11:50AM</td>
<td>Final Deliverables as URL pointing to .zip archive of the following:</td>
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<td>NOON deadline</td>
<td>1) working and final files of all creative work for quarter</td>
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<td>final deliverables</td>
<td>2) full entries on blog</td>
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s y l l a b u s  a g r e e m e n t
edpx 3701 | 4701

I have read the syllabus for EDPX 3701/4701 EDP Topics, Making : Biomedia, Spring 2016 quarter, thoroughly. My questions and concerns have been addressed at this date. I understand the content of the course and what is expected of me.

Name ___________________________________________ e-mail _______________________

ID #______________________________________________

Signature/date ________________________________