INTERDISCIPLINARY APPROACHES TO ARTS AND TECHNOLOGY

General course information

Semester   Fall 2013
Date & Time   Wednesdays 7:00–9:45pm
Location   ATC 3.605 (joint sessions with ATEC6300.501)
                 ATC 2.101 (split sessions / home classroom)
Course website http://elearning.utdallas.edu

Instructor

Dr. Maximilian Schich joined UTD as Associate Professor in Arts and Technology in January 2013. He earned his Ph.D. in art history (HU-Berlin 2007) with a work on "Reception and Visual Citation as Complex Networks". Since then, Max has worked to transcend disciplines at Max-Planck in Rome and as a post-doc with network/socio-physicists László Barabási (Northeastern) and Dirk Helbing (ETH Zurich). In addition, Max looks back at consulting experience with "graph data" starting in 1996, while also acquiring hands-on expertise in the Munich Glyptothek sculpture museum, and ZI Munich, one of the world's foremost art libraries. Max is the organizing chair of a successful symposium series on "Arts, Humanities, and Complex Networks" at NetSci conferences (15-24% acceptance rate) and an Editorial Advisor at Leonardo Journal.

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Email   maximilian.schich@utdallas.edu (please prefix **ATEC6300 (your name)** in subject for prompt attention)
Phone   +1-972-883-4334
New Office   Edith O'Donnell Arts and Technology Building: ATC 3.301
Office hours   Immediately after course or by email appointment
Note: I try to respond to student email within 24 hours Monday to Friday.

Dr. Malina and **Dr. Linehan** will co-teach joint sessions with ATEC6300.501.

Course summary

This course aims to introduce MFA and Master students to **Interdisciplinary Approaches to Arts and Technology**. With an eye to current and historical developments in the arts, sciences, and technology, it will challenge you to *invent the future*.

- In a series of **guest lectures**, students will meet and interact with a broad variety of ATEC faculty, preparing for future collaboration and choice of classes. Planned speakers (in alphabetical order) include Frank Dufour, Monica Evans, Paul Fishwick, Robert Gregg (CS), Phillip Johnson, Roger Malina, Sean McComber, Ryan McMahan, Mihai Nadin, Maximilian Schich, Cindy Shen, Kyoung & Scott Swearingen, and Marjorie Zielke. In addition we will tour the McDermott Library and hear about intellectual property opportunities at UTD.
- In a thread of **academic debate**, participants will discuss current issues in research and culture as related to Arts and Technology. Short required readings will mostly be taken from two books: *This Will Make You Smarter* and *This Explains Everything* (edited by John Brockmann, Harper-Perennial 2012/2013).
- In **project discussions**, we will work towards a project presentation in form of a short talk and a scientific poster. Students are encouraged to take their most exciting (existing, ongoing, or prospective) project to the next level in terms of presentation. To maximize effect, our discussions will cover *how to* come up with a good research question, set up a research pipeline, collaborate, gather and organize information, analyze, visualize, and model data, chose the right audience and product, construct a title, build an abstract summary, give a good talk, cite your sources, etc.

NOTE: Guest lectures and parts of this course will be colocated and coordinated with the parallel course ATEC6300.501, co-taught with Drs. Malina and Linehan. We currently work to harmonize the syllabi of both courses and set up a common agenda. In the regular case, we will meet in the 501 classroom for the guest lecture, splitting up into separate rooms after a break, to provide everybody a chance for interaction. **The first session will start in ATC 3.605!**

Required reading for the first session

– Uri Alon: **How To Choose a Good Scientific Problem.** *Molecular Cell* 35,6 (2009) 726-728
  http://www.weizmann.ac.il/mcb/UriAlon/Papers/HowToChooseGoodProblem.pdf

Course requirements and deliverables

The academic calendar, project assignments, readings, and presentation requirements
will be discussed and defined together in the first course session.

Academic debate
The full list of required readings will be presented in the first course session, as we aim to align with ATEC6300.501.
Usually, required readings for our academic debate will be short, but you are encouraged to forage and think deeper.
Most readings are taken from the two books listed below. We work to make the readings available from the UTD library.
Chapters will be specified in the course schedule. Alternative or further readings may be assigned during the course.

– John Brockman (ed.): ***This Will Make You Smarter: New Scientific Concepts to Improve Your Thinking.*** (New York:
  HarperCollins, 2012) http://www.amazon.com/This-Explains-Everything-Beautiful-Theories/dp/0062230174
– John Brockman (ed.): ***This Explains Everything. Deep, Beautiful, and Elegant Theories of How the World Works.***
  (New York: HarperCollins, 2013) http://www.amazon.com/This-Will-Make-You-Smarter/dp/0062109391/

Project presentations
For project presentations, we will follow the Ignite format – cf. http://en.wikipedia.org/wiki/Ignite_(event). You will present
20 slides that will auto-advance every *15 seconds. The slideset must be submitted one hour before class.*

The talk should contain a *basic introduction*, a more *detailed background*, the *general problem* to be addressed, the spe-
cific *main result or aim* of the project (*"here we show"*), a more *general context*, and a *broader perspective*.
To make this task easy, try to formulate a *Nature summary paragraph* for your project, before creating the slides:
cf. http://www.nature.com/nature/authors/gta/2c_Summary_para.pdf

Poster/Paper
Your final poster/paper should not exceed 2500 words (be concise!). The abstract should follow the Nature summary para-
graph. The title should apply lessons learned in class. You must cite all your sources. Plagiarism will not be tolerated.
In terms of format, please use the PLoS ONE guidelines: http://www.plosone.org/static/guidelines

Grading policy

Percentages   Project 45%   +   Attendance & Participation 45%   +   Presentation 10%
Grading scale   A = 100 - 90   B = 89 - 80   C = 79 - 70   D = 69 - 60   F = 59 - 0

NOTE: The Graduate Dean has asked that faculty members teaching graduate core courses make clear to their students
from the start of the semester an important detail of University policy: **Core courses in which a student is awarded a
grade lower than B will not be counted in the degree plan.** That is, if a student receives a final grade of B- or lower in a
course, the student will have to repeat the course for a higher grade.

Course & instructor policies (aka the fine print)

Class policies
All announcements will be sent **via email**. Students are responsible for reading each announcement in detail. ¶ All students will participate in the discus-
sion. Observers are expected to participate in the discussion equally. ¶ Students need to read all the assigned readings or complete homework prior to
the class discussion. Homework assignments need to be handed in before the respective class. The nature of an assignment including deliverables will
be defined together and announced in class or sent out as an announcement. ¶ Students have the responsibility of backing up all their data, code, and
preliminary work. It is highly encouraged to use a version control system, such as github, bitbucket, etc. ¶ Please contact the instructor if you have a dis-
ability that requires some arrangements so that appropriate arrangements can be made.

UT Dallas Syllabus Policies and Procedures
The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to http://
go.utdallas.edu/syllabus-policies for these policies. ¶ The principles of academic honesty and ethics will be enforced. You should credit all your sources.
Plagiarism (see UTD syllabus policies for definition) in final presentations, papers, or posters will not be tolerated. ¶ Excessive or unexcused non-attend-
ance (see UTD syllabus policies for definition) will lower your grade. ¶ The descriptions and timelines contained in this syllabus are *subject to change* at
the discretion of the instructor. Changes will be submitted in writing.