Faculty: Todd Richmond (toddr@usc.edu)

Title: Stories of Science and Complexity (2 units)

Location: RZC 120 (World Building Lab)

Day/Time: Wednesday 10:00-11:50 AM

Description: The world is becoming ever more complex, with science and technology being pervasive throughout society. Increasing specialization has led to often narrow fields of expertise, and an inability of practitioners to communicate across disciplines, let alone to the general public. But given the impact and rapid uptake of technology, it is imperative that society understand the applications and grapple with the implications of science in meaningful ways. Therefore, the power of narrative is more important than ever, as story is how humans engage and understand the world. This lab will look at a variety of scientific and technology fields, and through a combination of narrative, data visualization, and interactive/immersive, explore ways to explain complexity in new and compelling ways.

Prerequisites: This class is open to anyone who is motivated and curious. You will be expected to create media in various forms and you will work individual as well as collaboratively. If you’re in science, you’ll want/need to learn narrative approaches. If you’re in a creative field, you’ll need to absorb some science/technology. Don’t be worried about what you don’t know – just be focused on engaging new fields of inquiry.

Readings: Houston, We Have a Narrative by Randy Olson, and Visual Display of Quantitative Information by Edward Tufte are recommended.

Expectations: This is a lab class, so students are expected to experiment and create. In addition, there will be some degree of lecture, and a significant amount of discussion and student presentation, so participation on all fronts is desired and necessary. Prototypes take a wide variety of forms and approaches. We will emphasize process over product, and we hope to collaborate with other classes in both creative and scientific disciplines.

Breakdown:

In-class participation – 30%
Individual prototypes – 30%
Group prototypes – 40%
Schedule:

10Jan18 – introductions, class overview + immersive

17Jan18 – abstraction and first principles – examples from science

24Jan18 – representation – art and science

31Jan18 – student presentations - infographics

7Feb18 – visual display of scientific systems

14Feb18 – student presentations – stories without words

21Feb18 – post mortem

28Feb18 – individual project pitches

7Mar18 – individual working session

14Mar18 – no class

21Mar18 – individual project presentations

28Mar18 – post-mortem

4Apr18 – final project pitches

11Apr18 – final project working groups

18Apr18 – final project working groups

25Apr18 – Final presentations