



July 27 - August 7, 2020

UCLA Sci|Art Lab+Studio Summer Institute, CNSI (California NanoSystems Institute)  
UCLA

## ***From Nano to Stardust***

### **From Nano to Stardust – INTRO TEXT**

#### Faculty and staff:

##### **UCLA Professors (curriculum / lectures):**

Dr. Victoria Vesna, Art|Sci Center, Department of Design Media Arts, Founder + Director  
Dr. James Gimzewski, Department of Chemistry, Scientific Director  
Dr Adam Stieg, CNSI Associate Director, SciArt Director Emeritus

##### **Visiting Professor:**

Dr. Clarissa Ribeiro, Innovation and Prototype Lab Director, UniFor, Brazil

##### **Instructors:**

Kaitlin Bryson, MFA, Lead Instructor, UCLA Art|Sci  
Monica LoCascio, MFA student, Angewandte, Vienna, Austria  
Shane Houchin, PhD Student, Geology, CalTech  
Mick Lorusso, MFA, Los Angeles  
Sam Lilak, PhD researcher, Chemistry, Dr. Gimzewski Lab  
Zeynep Abes, Design Media Arts, Graduate Student

##### **Assistant instructors:**

Andrew Ortiz, Undergraduate student, Design Media Arts  
Ivana Dama, Undergraduate student, Design Media Arts

## **Week 1**

**DAY 1 | MON 07.27.20 INTRO TO SCI|ART & NANOSCIENCE**

9:00 - 10:30	<p>Introduction to Sci Art Lab+Studio – Remote edition, intro and guide to online instruction</p> <p>Welcome Art &amp; Science          Collaborations: Towards a Third culture   Prof. Victoria Vesna</p> <p>CNSI Welcome   Dr. Adam Stieg          Sci Art Collaborations   Prof. James Gimzewski</p>
10:30 – 10:45	Break
10:45 – 12:00	BIO-Hacking your home: How to create a lab in your kitchen or bathroom   Mick Lorusso, Kaitlin Bryson and Clarissa Riberio
12:00 - 1:00	Lunch
1:00 - 2:00	Workshop: DIY Microscopy
2:00 - 2:15	BREAK
2:30 - 4:00	<p>Sci Art in practice: Instructor Introductions          Kaitlin Bryson, Mick Lorusso, Clarissa Ribiero, Monica LoCascio, Shane Houchin, Zeynep Abes, Ivana Dama, Andrew Ortiz</p>
4:00 - 4:30	How to write Blog Posts

**DAY 02 | DAY 07.28.20 UNDERSTANDING NANO | TIME TO BE REALLY SMALL**

9:00 - 9:15	Review and prep for day
9:15 - 9:45	Lecture: Nanotechnology  Vuk Uskoković
9:45 - 10:00	BREAK
10:00 - 11:00	Lecture: Tools of Visualization   Dr. Adam Stieg
11:00 – 11:15	BREAK
11:15 – 12:00	Lecture: VR/AR Lecture   Zeynep Abes
12:00 - 1:00	Lunch

1:00 - 3:00	Workshop: VR/AR   Zeynep Abes
3:00 - 3:30	Introduction to Final Project   Kaitlin Bryson
3:30 – 4:00	BREAK
4:00 – 5:00	Virtual Lab tours: · <a href="#">Optical Microscopy - ALMS Core Lab</a> · <a href="#">Electron Microscopy - EICN Core Lab</a> · <a href="#">Scanning Probe Microscopy - NPC Core Lab</a> · <a href="#">Nanofabrication - ISNC Clean Room</a>

### **DAY 3 | WED 07.29.20: BIOLOGICAL MINDS | MOLECULES | MYCELIUM | BACTERIA**

9:00 - 9:15	Review and prep for day
9:15 - 10:15	Lecture: The Extreme Powers of the Microscopic, Mycelium and Bacteria  Kaitlin Bryson + Mick Lorusso
10:15 – 10:30	BREAK
10:15 - 12:00	Workshop: DIY home cultivation: Mycelium//Bacteria   Kaitlin Bryson + Mick Lorusso
12:00 - 1:00	Lunch
1:00 - 3:00	Workshop: Clarissa Ribeiro   Psychobiotic and our microbiomes
6:30 - 9:00	Watch party: Sci Fi film series

### **DAY 4 | THU 07.30.20: ECOLOGICAL NETWORKS and SYSTEMS THINKING**

9:00 - 9:15	Review and prep for day
9:15 - 10:15	Lecture: Ecological Networks: Ariel Levi Simons
10:15 – 10:30	BREAK
10:30 – 12:00	Workshop: ArcGIS // Remote Sensing   Shane Houchin
12:00 - 1:00	Lunch

1:00 - 3:00                      Workshop: ArcGIS // Remote Sensing | Shane Houchin  
Assignment: complete mapping project and blog

## **DAY 5 | FRI 07.31.20 SPACE**

9:00 - 9:15                      Review and prep for day  
9:15 - 10:15                    Lecture: Alien Stardust | Victoria Vesna + Eli Joteva  
10:15 – 10:30                    BREAK  
10:30 – 12:00                    Lecture: Photogrammetry | Zeynep Abes  
12:00 - 1:00                      Lunch  
1:00 - 3:00                      Workshop: Photogrammetry | Zeynep Abes  
3:00 - 4:30                      MIDTERM: discussion + assignment  
6:30 - 9:00                      Sci-Fi Film Series: 2001: A Space Odyssey  
Complete photogrammetry assignment and blog

## **DAY 6 | SAT 08.01.20 VIRTUAL FIELD TRIP**

9:00 - 12:00                      The Getty Conservation Center

## **DAY 7 | SUN 08.04.19**

REST!

# **Week 2**

## **DAY 8 | MON 08.03.20: FOLDING, CUTTING, LINKING**

9:00 - 9:30                      Review Week 1 | Intro Week 2  
9:30 – 12:00\*                    Lecture and workshop: CRISPR Applications & Implications |  
Sam LoCascio  
\*includes breaks\*

12:00 - 1:00	Lunch
1:00 – 3:00*	Final project midterm proposals *includes breaks*
3:15 – 3:30	BREAK
3:30 - 5:00	Workshop: Origami, DNA & Architecture   Clarissa Ribeiro
7:00 - 9:00	Watch Party: NOVA: Origami Revolution

### **DAY 9 | TUES 08.04.20 INVESTIGATION**

9:00 - 9:15	Review and prep for day
9:15 - 10:15	Lecture: Genetic engineering and animals
10:15 – 10:30	BREAK
10:30 – 12:00	Workshop: Processing & Coding   Andrew Ortiz
12:00 - 1:00	Lunch
1:00 - 3:00	Workshop: Processing & Coding   Andrew Ortiz
3:00 - 5:00	Assignment: Finish Processing & Coding
6:00 - 8:00	Hox Zodiac dinner

### **DAY 10 | WED 08.05.20 INSPIRATION**

9:00 - 9:15	Review and prep for day
9:15 - 10:15	Lecture: Sound + Science   Clinton Van Arnam and Ivana Dama
10:15 – 10:30	BREAK
10:30 - 12:00	Workshop: Making instruments from our home environments   Ivana Dama and Clinton Van Arnam
12:00 - 1:00	Lunch
1:00 - 9:00	Studio time   Work on final projects

**DAY 11 | THR 08.06.20 PERSPIRATION**

9:00 - 9:15	Review and prep for day
9:15 - 10:15	Lecture: Ethics of Art + Science   Rita Blaik
10:15 - 12:00	Final projects // studio + check in
12:00 - 1:00	Lunch
1:00 - 9:00	Final projects // studio + check in

**DAY 12 | FRI 08.07.20 CLOSING PROGRAM**

10:00 – 11:00 am	Welcome & Program Review
11:00 – 1:00 pm	Final Presentations