SCIENCE, TECHNOLOGY AND SOCIETY:
THE IDEA TRANSLATION LAB AT TRINITY COLLEGE DUBLIN

AUTUMN 2018: PLASTIC WORLD
#SGDPlasticWorld

Monday's 13:00 - 14:00
Wednesday's 11:00 - 13:00

COURSE CODE: BCSCI - This course is open to students in arts, humanities and science disciplines.
ECTS VALUE: 5

COURSE COORDINATOR: Zack Denfeld, Researcher, Science Gallery, Trinity College Dublin
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COURSE ASSISTANT: Joanna Crispell, European Projects Researcher, Science Gallery, Trinity College Dublin
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STAFF PROFILES:
Zack Denfeld is an artist, designer and educator working at the intersection of the natural, built and information environments. Zack currently runs the Center for Genomic Gastronomy and CoClimate, is a researcher at Science Gallery, Dublin, Trinity College and Associate Professor of Interaction Design at the University of Bergen. He helped launch the Center for Experimental Media Art at the Srishti Institute of Art Design & Technology (Bangalore, India) and the MFA in Collaborative Design at PNCA (Portland, OR). Zack holds degrees from Syracuse University and the University of Michigan.

Joanna Crispell - European Projects Researcher
In her previous life Joanna was a virologist, working in the lab studying horse flu. During her PhD, she got involved in public engagement, and became convinced that all researchers should be communicating their science in some shape or form. At Science Gallery Dublin, she is the go-between for researchers and artists, trying her best to speak both their languages.
COURSE RATIONALE AND AIMS:
The Idea Translation Lab course involves working on the boundaries of art, science, technology, and engineering and developing new innovative ideas where these disciplines meet. It is a cross disciplinary undergraduate course stimulating the development of entrepreneurial skills through collaborative group projects.

Modeled on and closely linked to the Harvard University, Idea Translation Lab, the course consists of a combination of lectures, including many guest lectures, and weekly “labs” where students work on developing their collaborative projects. For more information please see examples of previous iterations of the ITL course from 2011, 2012 and 2013. The theme for the 2018/2019 year is PLASTIC WORLD, a theme that will tie in with Science Gallery Dublin’s flagship summer exhibition for 2019 of the same name.

Following the completion of the course and presentation of their projects, a select number of students will have the opportunity to further develop their projects through Trinity term with opportunities to present publicly at national events and Science Gallery exhibitions. This exciting course for undergraduate students in partnership with Trinity College’s unique Science Gallery allows students opportunities to explore science’s interaction with society through practical examples and project work. The programme aims to equip students with skills beyond their discipline boundaries to take creative project ideas and interrogate, applying both design and entrepreneurial skills to produce projects with real world outcomes. These projects may have impact along three axes: social, cultural and commercial.

Furthermore, the course will encourage students to reflect critically on the broader perspectives around the cultural, ethical and economic role of science in society including science policy and the commercialization of new ideas.

METHODS OF TEACHING AND STUDENT LEARNING:
The teaching strategy for this course is a mixture of lectures, tutorials, and practical group work (labs). The format of the lectures is conventional, however interaction with the students will be informal, the speakers will be drawn from diverse backgrounds, and students will be encouraged to question and discuss each lecture topic. External experts will contribute to the lecture programme giving students an insight into the practical, everyday application and reality of each topic covered.
COURSE HOURS:
SEMESTER 1: September – November
SEMESTER 2: January – April

12 hrs Lectures, 24 hrs Labs, 36 hrs Group Work, 24 hrs Self Study assignments, including readings. Each week students will take part in 1 hr lecture and 2hrs of lab. Additional to these contact hours, students will be required to spend approximately an additional 24 hours on self study and assignments and up to 36 hours on the midterm and group idea translation project. Further information on the methods of assessment is included below.

METHODS OF ASSESSMENT FOR COURSE:

This is a continuously assessed programme and attendance is required in order to complete the work and pass the course. In addition to being engaged in individual and group work during class time, students will be assessed on their engagement and online conversation outside of class time.

Assessment of this module is by:
• Completion of assignment – 20%
• Completion of programme including self-evaluation – 20%
• Completion of group project work including report – 60%

NOTE: Attendance will be taken in the first weeks of the course. If you are unable to attend classes it is recommended that you transfer out of the programme. The course is continuously assessed, with a large group work component, and regular attendance is essential for successful completion of the programme.

GROUP PROJECT:

Students will work in groups to produce group idea translation projects based on the theme of PLASTIC WORLD, they will be facilitated through this process at weekly group “lab” sessions and can draw inspiration and information from weekly sessions with internal and external mentors.

A proposal will be submitted by each group describing the nature of the group’s idea, the need it addresses, precedents and challenges to development and how their own idea might be translated to an end product. Each group will present their idea to a judging panel in Science Gallery Dublin in Week 12. The winning team will get an opportunity to develop their work further with Science Gallery Dublin.
EXPECTATIONS:

ON TIME: You will arrive at Science Gallery 5 minutes before the class begins and be in the classroom on time, ready to participate

READINGS: You will have completed the readings, and come prepared with quotes, questions and points of view about the content

COLLABORATION: You will experiment with various collaborative modes, participate fully, and treat each other kindly and respectfully

LEARNING OBJECTIVES:
At the end of this course, students who attend all classes and complete all assignments diligently should be able to:

- Brainstorm, ideate, refine and develop ideas
- Locate, assess and cite relevant visual and textual materials using print and electronic databases
- Communicate project ideas through the creation and dissemination of images, texts, objects and rich media
- Describe, analyze and critique design artifacts (including apps, business plans, agricultural robots, transgenic organisms, proposals, prototypes, mind maps, etc.)
- Generate and support novel theses by analyzing and synthesizing texts, lectures, images and artifacts
PLASTIC WORLD Exhibition Description
Exhibition: Summer 2019 (TBC)

It is essential but polluting. It saves lives, yet it chokes our oceans. It's cheap to create but expensive to dispose of. It can last forever, but is often only used once.

PLASTIC has changed our daily lives and our environment more than any other material. We can't live without it. But living with it might not be an option for much longer.

Plastic is not just ubiquitous: it is literally omnipresent. It's found in all the usual places: electronic devices, motor vehicles, buildings, bathtubs, shoes and chairs. Our hospitals, airports, power plants and server farms are unimaginable without plastic. But new research is turning up plastic waste in unexpected places, and in frightening quantities. From giant Pacific garbage gyres to Antarctic ice peppered with microplastics, from beehives to organic meat, plastic seems to be everywhere we look for it. What will be the long term effects of this relatively new, but incredibly long-lasting material?

To stop using plastic is not an option. As an aesthetic material for artists and designers it is unparalleled, and it has revolutionised industrial design. More essentially, modern medicine relies on plastic so heavily that even the most basic medical procedures would be unimaginable without plastics. Plastics have great power, and with great power comes great responsibility.

What does the future hold? There may be cause for cautious optimism. Plastics are a global (but relatively recent) problem, meaning our environment and our culture has plasticity - we can mould and change it, both intentionally and unintentionally. Material scientists are investigating plastic alternatives, manufacturing and recycling processes are rapidly innovating, and artists and designers are exploring new ways to modify our single-use consumer culture. The unsustainability of our relationship with plastic is obvious, and the clock is ticking. Can we utilise this wonderful, terrible material, and can we fundamentally change our approach to living in a PLASTIC WORLD?

OPEN CALL
We are seeking proposals for up to twenty works for our PLASTIC exhibition. Proposals may be new or existing works, and will be funded up to a maximum budget of €3000, which should include all artist fees, materials, equipment, shipping, travel etc. Please note that these are maximum amounts, and we enthusiastically welcome proposals below this limit. We are happy to write letters of support for applicants seeking funding from elsewhere.
INDICATIVE COURSE RESOURCES:

Art & Science Now: How scientific research and technological innovation are becoming key to 21st-century aesthetics — Stephen Wilson.

Creative Confidence: Unleashing the Creative Potential Within Us All — Tom Kelley & David Kelley

Speculative Everything — Anthony Dunne and Fiona Raby

Talk to Me: Design and the Communication Between People and Objects — Antonelli, Paolo

Thinking Design. — Balaram, S.

This is Service Design Thinking: Basics, Tools, Cases — Marc Stickdorn