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

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

ECTS VALUE: 5

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COURSE LEADER: Zack Denfeld, Lead Researcher, Science Gallery, Trinity College Dublin

STAFF PROFILES:

Lynn Scarff, MSc is the Director at the Science Gallery Dublin. She holds a BA (mod) in Natural Sciences from Trinity College Dublin and a Masters in Science Communication from Dublin City University. She has six years of teaching experience in 2nd level and developed science education and outreach programmes for a range of NGO and government organizations including Sustainable Energy Ireland, ENFO, Dublin City Libraries and the EPA.

Jane Chadwick is Education and Learning Manager at Science Gallery Dublin. She holds a BA (mod) in Natural Sciences and a PhD in Geochemistry and Volcanology with over six years of research, teaching, and Science Communication experience. At Science Gallery she combines her love of science, technology, and design to develop projects, events, courses and workshops for Science Gallery education programmes.

Zack Denfeld (http://www.zackdenfeld.com/) is an artist, designer and educator working at the intersection of the natural, built and information environments. Zack founded the Center for Genomic Gastronomy and CoClimate, two artist-led think tanks that conduct projects in Asia, Europe and North America. He helped launch the Center for Experimental Media Art at the Srishti School of Art Design & Technology (Bangalore, India) and the MFA in Collaborative Design at PNCA (Portland, OR). He has worked with CKS on the Emerging Economy Report and with CSTEP's Next Generation Infrastructure Lab. Zack holds degrees from Syracuse University and the University of Michigan.

COURSE RATIONALE AND AIMS:
In the Idea Translation Lab (ITL) course, students will work at the boundaries of art, science & engineering to develop original ideas and projects where these disciplines meet. ITL is a cross
disciplinary undergraduate course stimulating the development of entrepreneurial, creative and critical thinking skills through collaborative group projects.

The course aims to equip students with skills beyond their disciplinary boundaries and to develop creative project ideas, applying both design and entrepreneurial skills to produce projects with real world outcomes. These projects may have impact along different axes: social, scientific, 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 commercialisation of new ideas.

In the first half of the course students will work individually and in small groups to explore a range of methods and research topics related to the theme of COLLAPSE. In the second half of the course, students will work together to develop and present a final project, which can take forms such as installation, a business plan or designed prototype.

This undergraduate course is hosted in Trinity College’s Science Gallery (https://dublin.sciencegallery.com/), giving students the opportunity to explore interactions with society through practical examples and project work.

Science Gallery Dublin will be presenting a season of programming related to theme of COLLAPSE in the autumn of 2017 and the ITL course will take advantage of visiting lecturers and other activities taking place at the Science Gallery related to that theme. Where appropriate students’ final projects can be incorporated into the COLLAPSE exhibition in the form of exhibition, events or other forms of public dissemination.

PREVIOUS PROJECTS:
Videos of previous student projects can be found here:

2016 - FIELD TEST - Radical Adventures in the Future of Farming (https://www.youtube.com/watch?v=R2kD2ZvdSos)


GUEST LECTURES:
In addition to faculty lectures and assignments students are given the opportunity to meet and learn from domain experts in the theme under investigation. During the 2016 ITL course on the theme of FUTURE FARMING guest lectures included:
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 is informal, the speakers will be drawn from diverse backgrounds, 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.

In addition, homework and student research is submitted via twitter. This way horizontal conversation can continue outside of the class, and students can expand their research in the public sphere and include non-local stakeholders.

For past examples of class discussion, see: #ITLdub (https://twitter.com/hashtag/itldub)

NOTE: If you have never used twitter, or are unsure of how it will be incorporated into your research, we will introduce the use of twitter for classroom use at the start of the course.

COURSE HOURS:
Hilary Term: January – April, (12 hrs Lectures, 24 hrs Labs, 36 hrs Class Work)
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 36 hours on self-study and assignments including the 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 readings and digital assignments – 20%
- Completion of mid-term evaluation – 10%
- Assessment of Mid-point project 15%
- Completion of group project work, including final group reflection and evaluation – 55%

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 COLLAPSE, they will be facilitated through this process at weekly group “lab” sessions and can draw inspiration and information from weekly ‘lecture” 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 in Week 12. The winning team will get an opportunity to develop their work further with Science Gallery.

DESCRIPTION OF THE COLLAPSE EXHIBITION

COLLAPSE will be a flagship exhibition at Science Gallery in late 2017 - it is a work in progress, but below an initial description of the exhibition theme:

What’s the difference between a collapse, a downfall, or a downright apocalypse? How will it all end, and why do we love to wonder? Ice or fire, zombies or bombs, out with a bang or a whimper? What fascinates us about societies, ecosystems, and economies crashing? In COLLAPSE we will explore why the disastrous can be devilishly entertaining, and whether there’s any truth in these dismal predictions. Join doomers, designers, and doctors as they lay out the top ways the world might end, how likely they are, and what we can (hopefully) do about it.

INDICATIVE COURSE RESOURCES:

THEME
Collapse — Jared Diamond
The Utopia Experiment — Dylan Evans
Leverage Points: Places to Intervene in a System — Donella Meadows
1177 B.C.: The Year Civilization Collapsed — Eric Cline & Jakob Schneider

**METHODS**

This is Service Design Thinking: Basics, Tools, Cases — Marc Stickdorn &
Artscience: Creativity in the Post-Google Generation — David Edwards
Creative Confidence: Unleashing the Creative Potential Within Us All — Tom Kelley & David Kelley