Liberal Arts and Natural Sciences: Modules

First year

Natural Sciences Book Club

The ability to combine skills and knowledge from different disciplines is vital to address the global social and environmental challenges we are facing in the modern world. This module will take a fresh approach to topical science subjects (e.g. gender, human evolution and the universe) using popular science books (e.g. 'Testosterone Rex' (Fine, 2017), 'A Brief History of Time (Hawking, 1988) and 'A Brief History of Everyone Who Ever Lived' (Rutherford, 2016) and integrate this with a cultural and social perspective.

Taking an interdisciplinary approach, two key texts will be covered in class sessions (one book in each semester) with specialised lecturers from different fields approaching the content from different points of view. Using a combination of lectures and seminars there will be opportunities to acquire new knowledge; develop key skills and work with students from different disciplines. Therewill be a clear focus on critical analysis and evidence-based literature reviewing. The module will also consider the writing styles and approaches in different disciplines. Furthermore, students will be expected to engage in critical discussions and group work where they will need to recognise and appreciate the viewpoints of others in a sensitive manner. The students will be expected to be active participants in the learning process. The overall aim of this module is for students to develop a greater awareness and understanding of science subjects potentially outside of their immediate discipline area

and to integrate their knowledge and skills from diverse areas to explore different critical perspectives. The module will raise diverse questions around key topical issues, and will address the fundamental question of what it means to be human.

Second Year

Interdisciplinarity I: Truth and Post-Truth in the Age of Big Data (10 credits, semester 1)

Interdisciplinarity is an advanced method of research that requires a unique set of skills. Unlike multidisciplinarity, this kind of research integrates different methodologies and blurs the lines between disciplines.

In 2018-2019, this module looked primarily at the topic of truth and post-truth in the age of big data. How can we recognise the truth? In an age of big data, our interests and values have been commodified and exploited, and with accelerated communication, fake news can be disseminated without accountability. Experts delivered classes about the uses and manipulation of language, statistical data, and other attempts to persuade in scenarios where 'truth' becomes increasingly ambiguous and contested.

The class created an inventory identifying examples of fake news that occur during the semester.

Interdisciplinarity II: Sustainability (10 credits, semester 2, plus a summer term study visit – e.g. to Brussels)

The final core module is the culmination of key skills learning

and also teaches an advanced set of skills designed to enable you to turn your multidisciplinary degree into an interdisciplinary one. You will work as part of an interdisciplinary research group that will select real-world problem/s and identify how to tackle them. Potential examples, taken from the UN's sustainability goals, are:

• Ensuring quality education for all and promotion of lifelong learning
• Achieving gender equality and empowering all women and girls
• Ensuring access to water and sanitation for all.

As a group, you will explore your chosen issue from a variety of perspectives. Each member of the group will provide disciplinary expertise and will teach a seminar to the rest of the research group, including setting the reading and leading the discussion. Other sessions will focus on integrating the different disciplinary approaches, and we will also have sessions led by experts from across the university who will discuss the interdisciplinarity of their research.

This module completes your training in key Liberal Arts and Sciences skills and prepares you, if you wish, for the interdisciplinary dissertation and fourth-year modules.

Fourth Year

Learning Entrepreneurial Skills (20 credits, semester 1)

An enterprising and entrepreneurial mindset and skills is highly prized by employers globally, and ensure that you are able to compete at a high level within the graduate labour market. This module will help you to

become enterprising in your approach to problems by enabling you to develop abilities, behaviours and qualities to 'make things happen'. Through engagement with a range of experts and hands-on activities you will strengthen your skills in approaching challenges in a creative and resourceful way.

Working in teams, and through research, business-plan creation, and a pitch of the business plan, this module supports your development as a:

- Creative, enterprising and transformative thinker
- Skilful and technologically astute problem solver

- Persuasive communicator
- Globally and locally aware citizen
- Confident, flexible lifelong learner
- Resilient and dynamic leader.

Entrepreneurial Start-up (20 credits, semester 2)

Your business plan has successfully been pitched, what next? Students now explore product viability through to launch. The actual product launch is not embedded in the module, but you can of course pursue this outside of your studies.

You receive initial practical training in how to demonstrate entrepreneurial skills, and engage in independent guided learning as part

of a team, collaborating on the design, planning, and viability-testing phases. Your progress through this module is supported and guided by the University's outstanding Careers Network team.

Throughout your learning journey on these modules, you will benefit from the expertise and guidance of our external partners, which in 2017/2018 included: international technology companies (IBM, Google), local Start-up accelerators (Entrepreneurial Spark, BizzInn) and investor firms (Midven, Blue Sky finance).

This document was written several months in advance of the start of the academic year. It is intended to provide prospective students with a general picture of the programmes, courses and modules offered by the School. Please note that not all programmes, courses or modules are offered every year. Our research is constantly exploring new areas and directions of study, therefore some courses or modules may be amended or withdrawn and new ones offered in their place.

LANS Module Options

Incoming students would need to take a minimum of 20 credits in LANS over two Semesters or 10 credits minimum for one Semester only. Information about the available modules is attached and below. Please note we can offer modules at 3 different levels:
- ➢ Year 1 (Basic) is the Natural Sciences Book Club
- ➢ Year 2 (Intermediate) are the Interdisciplinarity I and II modules
- ➢ Year 4 (Higher) are the Entrepreneurial modules

Semester 1 only

- Interdisciplinarity I: Truth and Post-Truth in the Age of Big Data (10 credits)
- Learning Entrepreneurial Skills (10 or 20 credits)
- Both modules up to 30 credits

Semester 2 only

- Interdisciplinarity II (10 credits)

Both Semesters

- Natural Sciences Book Club (20 credits)
- Interdisciplinarity I (10 credits) and Interdisciplinarity II (10 credits)
- Learning Entrepreneurial Skills (10 or 20 credits) and Interdisciplinarity II (10 credits)
- Learning Entrepreneurial Skills (20 credits) and Entrepreneurial Start-up (20 credits)
- Both Interdisciplinarity skills modules (20 credits) and both Entrepreneurial modules (40 credits)
- Both Interdisciplinarity skills modules (20 credits) and Learning Entrepreneurial Skills (10 or 20 credits)

The main difference between the 10 and 20 credit module in Learning Entrepreneurial Skills is the assessment.