SHKU **FACULTY OF SCIENCE**
Science **THE UNIVERSITY OF HONG KONG**
香港大學理學院

Information Session for DSE Students –

YOUR FIRST LECTURE

@ HKU SCIENCE

27 May, 2021 (Thurs)
12 NN – 5:45 PM

Pre-induction Talks

To Science Lovers:
HKU Science is your company in the path of pursuing Science.
Join pre-induction talks & get to know your life at HKU Science!

✴ **6901** BSc & Young Scientist Scheme (YSS)
✴ **6688** Science Master Class **NEW**
✴ **6729** BSc in Actuarial Science
✴ **6224** BASc(Applied AI)

Mock Lectures

Learn from the best minds at HKU Science. Experience mock lectures offered by our academics from:

- School of **Biological Sciences**
- Department of **Chemistry**
- Department of **Earth Sciences**
- Department of **Mathematics**
- Department of **Physics**
- Department of **Statistics & Actuarial Science**

All lectures and talks will be conducted online via ZOOM

Mock Lecture Schedule

Time	Talk 1	Talk 2
12:00-12:45pm	6901 BSc + YSS pre-induction talk	6224 BASc(AppliedAI) pre-induction talk
1:00-1:45pm	6688 Science Master Class pre-induction talk	6729 BSc(ActuarSc) pre-induction talk
2:00-2:45pm	Mock lecture on Biological Sciences	Mock lecture on Physics
3:00-3:45pm	Mock lecture on Mathematics	Mock lecture on Chemistry
4:00-4:45pm	Mock lecture on Statistics & Actuarial Science	Mock lecture on Earth Sciences
5:00-5:45pm	Mock lecture on Environmental Science	

Mock Lecture Abstract

Theme	Topic	Key content
Biological Sciences	Animal Behaviour	• Why do animal behaviours vary among individuals and species? • How do environment and ecological interactions influence behaviours? • What are the underlying genetic mechanism of a particular behaviour?
Chemistry	Go with the Electron Flow	• Dealing with electron flows found in biological contexts and artificial settings, such as biofilms, DNA, proteins, sensors, energy catalysis systems, and electrochemical devices
Earth Sciences	Interesting Facts about Our Earth	• How Earth scientists investigate the history and structure of our Earth • Why Earth has liquid water on its surface, how earthquake occurs, when the first bloomed • What killed more than 96% of marine species around 252 million years ago
Environmental Science	Emerging environmental challenges: noise and light pollution	• Noise and light pollution as emerging challenges from urbanisation, with impacts on both wildlife and human health • Mitigating these problems to increase the sustainability of our cities
Mathematics	Counting to Infinity	• What exactly are we doing when we count? • Can the process be generalised in a way that allows us to compare sets of infinite size? Are all infinite sets essentially having the same size? • Mysteries of infinite sets and to briefly discuss different sizes of infinities
Physics	Nuclear Binding Energy and Nuclear Power	• Structure of an atom, the fundamental building block of matter • Basic properties of the component nucleons within • How an atomic nucleus can be formed with binding energy and its application to nuclear power
Statistics & Actuarial Science	Introduction to Statistical Learning	• Fundamental concepts of statistical learning such as classification, regression, supervised learning, and unsupervised learning • Statistical learning methods and to illustrate their performance with real data examples

**Register online
by May 23, 2021 (Sunday)**
https://www.scifac.hku.hk/dse-session-2021