



## 2024 Series 1 Course D

<b>Title</b>	<b>Science Meets Society in History</b>
<b>Date</b>	<b>Thursdays 22 February – 28 March 2024</b>
<b>Time</b>	<b>10 am – 12 noon</b>
<b>Venue</b>	<b>Leith Bowling Club, 2 Duke Street, North Dunedin</b>
<b>Convenor</b>	Andre Smith Email: <a href="mailto:andrej.smith@gmail.com">andrej.smith@gmail.com</a> Phone: 022 024 0088
<b>Developer</b>	Terence Doyle
<b>Course fee</b>	\$50 (please do not pay until you receive an invoice)

Join Emeritus Professor Terence Doyle on a voyage through the history of science, from shocking discoveries to dabbling with the occult. Along the way meet Galileo and Darwin and find out how old the earth is. Sherlock Holmes will reveal that it is all “elementary, my dear Watson”.

**All applications must be received by Thursday 25 January 2024.** You will receive a response to your application by Monday 4 February 2024.

Please contact the Programme Secretary [courses@u3adunedin.org.nz](mailto:courses@u3adunedin.org.nz), phone 467 2594 with any queries.

## **Science Meets Society in History**

### **22 February Voyaging on strange seas**

#### **The scientific revolution in context**

The Renaissance marked a new way of looking at what it meant to be human. Shortly after, the early 1600s saw a new way of looking at the natural world, in what would become known as the Scientific Revolution.

#### **The Lunar Men**

In the mid-1700s a group of friends in the English Midlands met regularly on evenings when there was enough moonlight for them to see their way home. What they discussed in their meetings laid the foundation for the Industrial Revolution.

### **29 February Science gets a shock**

#### **The discovery of electricity and magnetism**

Electricity found its earliest application in entertaining parlour games. Anton Mesmer mesmerised Paris society with his use of what he called 'animal magnetism'. Michael Faraday then discovered that electricity and magnetism were related, and James Clerk Maxwell showed how.

#### **Problems with the atom**

From its Greek origin, the word 'atom' means 'cannot be split'. This supposedly made it the smallest particle of matter. However, New Zealander Ernest Rutherford showed that the atom had yet smaller components. Dane Niels Bohr proposed that the atom was like a tiny solar system. However, none of this could be seen, so why believe it?

### **7 March Meeting the occult**

#### **Bygone beliefs – or are they?**

Magic and the occult have had a long and interesting history from the earliest times. Was belief in the occult dispelled by the Scientific Revolution?

#### **Pseudoscience and science fiction**

Is the Scientific Revolution ongoing and what can we believe?

## **14 March      Confronting Darwin**

### **Before and after**

Charles Darwin was not the first to think of evolution. Who were Darwin's predecessors and how were his own views received? Did they influence the story of Adam and Eve, which is pivotal for the concept of the 'fall' and 'redemption' of humanity?

### **Genetics, good and bad**

Biology rewrote our understanding of genetic diseases and inheritance. In the early 1900s the 'Eugenics' movement proposed purifying humanity by encouraging 'desirable traits' and eliminating 'the undesirable'.

## **21 March      The scene of the crime**

### **Forensics and the fate of Richard III**

In 2012 the remains of Richard III were dug up from a carpark in the center of Leicester and identified by forensic examination. What is the science of forensics and how has it developed?

### **The scientific Sherlock Holmes**

For Sherlock Holmes the solution to a crime is usually 'elementary (my dear Watson)'. But how does he do it really?

## **28 March      Science meets religion**

### **The Galileo affair**

In 1615 the mathematician and astronomer Galileo Galilei boldly asserted that the earth rotates around the sun. The Church represented by Pope Urban VIII disagreed, saying that the idea was not only absurd, but also contradicted holy scripture. What was the outcome of this standoff?

### **The age of the earth**

After studying the Bible, James Ussher, Archbishop of Armagh, proclaimed that the earth was created on October 22nd 4004 BC. The emerging science of Geology suggested that the earth was very much older. What was the evidence?