

EXPLAINING THE iPhone TO ISAAC NEWTON

“Any sufficiently advanced technology is indistinguishable from magic.” Arthur C. Clarke.

The (ambitious) goal of this course is take a very rapid tour of the history of modern science and technology focusing on electricity, electromagnetism, optics, telecommunications, solid-state physics, microelectronics, computing, chemistry, and the global positioning system. To tie all these ideas together we examine the iPhone. An object that fits in your hand, the smartphone encapsulates 350 years of astonishing developments in science, technology, manufacturing, society, arts, and culture.

To frame the discussion, we imagine Sir Isaac Newton has been transported through time to our classroom and, setting aside anything else he might wish to discuss, he sees you using your iPhone and asks what it is. Why Sir Isaac? First, he was a genius with the stature of Archimedes, da Vinci, and Einstein. Secondly, because he lived at the dawn of the modern era; unlike earlier geniuses, he should be able to grasp the concepts. Also, he spoke English.

The course is aimed at the curious layperson. We will delve into each topic at sufficient depth to explain what makes the iPhone possible, and we will explore the history of the sciences. While some mathematics is used, it is there for Sir Isaac’s benefit.

Week Topics

1. What the iPhone does and what’s in it

The science and technology involved

How Isaac Newton fits in

2.-5. The sciences and technologies:

- Electricity
- Chemistry
- Optics
- Telecommunications
- Electromagnetism
- Solid-state physics
- Computing and information
- Global positioning and relativity

6. Where do we go next?

LEADER: Bernard Abramson, retired corporate Chief Information Officer, with international management and consulting experience, and former Adjunct Professor in the Master of Technology Management program at Polytechnic University.

FORMAT: Hybrid

MAXIMUM: Unlimited

MONDAYS 1:00 to 3:00 p.m. 6 sessions starting October 3rd through November 7th