Biosensor technology and applications for the non-scientist

This breadth course introduces uses of and key ideas behind biosensor technology. Sensors will be familiar to all, playing key roles in our everyday lives, for example in touch screens or in automotive technology. Biosensor devices are fabricated from an electrical transducer which is intimately connected to a biochemical probe such as an enzyme or antibody. The idea is that a detectable electrical signal can be obtained when a target molecule or ion binds to the probe. Such a device offers many applications. These range from the detection of biological markers in blood and serum to test for genetic and infectious disease, to the selective monitoring of biomolecules for public safety, or in biotechnology or other industrial processes.