This short course provides an Introduction to gravity, magnetic, electrical, electromagnetic, radiometric and seismic exploration techniques used primarily by the petroleum and mining industry but also applied extensively to environmental and engineering problems. It is primarily intended for undergraduate and graduate students with interests in applied geophysics, and no prior knowledge of the geophysical subject matter is required. Emphasis will be placed on the physical basis and the practical application of each technique, including data processing methods and geological interpretation; examples will focus on mineral exploration problems but will also be relevant to other applications in geoscience.