

An Introduction to Astronomy



Dr Adrian Jannetta FRAS

Saturdays 26th October
2019—23rd November
2019

10.00 am - 12.00 noon

Berwick Voluntary Centre,
Tweed Street, Berwick
TD15 1NG

This five week course will provide an overview of modern astronomy and is aimed at the complete beginner. The theoretical topics to be covered include the solar system, the Milky Way, the Sun and stars, galaxies and cosmology. The course will also look at practical astronomy: using a telescope, astronomy software, star maps and finding stars and constellations in the night sky.

Session 1 Exploring the solar system.

The first session will provide an overview of the Sun, planets and the major moons. Planetary motion and gravity will be considered, as will asteroids and comets. We will study what is a planet, and look at exoplanets and other solar systems. Finally, the origin of the solar system will be examined. **PTO**

Session 2 Practical astronomy.

During this week we will look at the different types of telescope, before considering how to measure the position, distance and brightness of objects in the night sky. This will be followed by a consideration of how being in Northumberland influences our view of the night sky. Constellations and asterisms will then be studied, as will how to find things in the night sky: star hopping! Finally, there will be an introduction to Stellarium. Bring your laptop or tablet to this session!

Session 3 The Sun and stars.

Stars come in lots of sizes and masses, while the Sun is the nearest and best studied star. In this session we'll also see how astronomers classify stars and worked out how they shine. Finally stellar evolution and death, which provide the necessary ingredients to make life possible in the universe, will be considered.

Session 4 Our place in the universe.

During this week we will go on a journey from Berwick to the edge of the universe! In a series of jumps we'll see what the universe looks like as we expand our view. From planets, to stars, to galaxies, supermassive blackholes and beyond, we'll find our place in the cosmos.

Session 5 In the beginning.

This week will provide an overview of modern cosmology. We will cover the expanding universe (the Big Bang theory); dark matter and dark energy; and universe or multiverse? Finally, we will consider the questions: 'Was there a time before the Big Bang?' and 'What is the fate of our universe?'

The course costs £30 or £8 per session including refreshments.

All are welcome and no previous knowledge is assumed.

If you supply us with your personal data (name, address or email), we will hold this in accordance with our privacy policy, available [here](#) or by request to BEA, 7 Ravensdowne, Berwick-upon-Tweed TD15 1HX. If you have any queries, please email berwickea@gmail.com or phone Cian McHugh on 01289 303254.

To book online, please [click here](#) **To book by post**, please fill in the booking form below, and post it to BEA, 7 Ravensdowne, Berwick-upon-Tweed TD15 1HX, along with a cheque in favour of BEA.

Name:

Address:

Tel No:

Email:



Cheque enclosed £

(Astronomy Oct 19)