



**Berwick Educational
Association**
Introduction to
Astronomy

A series of five lectures
by Dr Adrian Jannetta
FRAS

**Saturdays 3rd February - 3rd March 2018,
10am -12 noon,
Berwick Voluntary Centre, Tweed St, Berwick**

A short astronomy course covering everything in the universe! From the Sun and planets to exoplanets orbiting other stars and supernovae exploding in distant galaxies and supermassive black holes...you'll never look at the night sky the same way again! This course, which is aimed at beginners to astronomy, will be a mix of practical advice and background theory.

3RD FEB: PART 1 --- EXOPLANETS

This session will cover the techniques used by astronomers to discover planets around other stars. We'll cover the following points:

- Methods for discovering extrasolar planets.
- How many planets in the Milky Way?
- A brief history of SETI (Search for Extra Terrestrial Intelligence).
- Resolving Fermi's paradox: Where are the aliens?

10TH FEB: PART 2 --- THE SUN AND OTHER STARS

A look at stellar evolution through some specific stars in the sky. Why are some stars stable and why do others pulsate?

- Life cycle of the Sun: a low mass star.
- Life cycle of Betelgeuse: a high mass star.
- Pulsating variable stars
- Planetary nebulae and white dwarfs
- Massive, unstable stars: luminous blue variables and Wolf-Rayet stars.
- Stellar end points: supernovae, neutron stars and black holes.

17TH FEB: PART 3 --- THE SPRING NIGHT SKY

A tour of the Spring night sky with an emphasis on visual astronomy and observing with the naked eye, binoculars and small telescopes.

- How the constellations got their names.
- Star names, brightness and distances.
- Double stars.
- Using The Plough as a signpost.
- Virgo and the Realm of Galaxies.
- Targets for binoculars and small telescopes.

24TH FEB: PART 4 --- SPACEWEATHER

This might be titled Earth astronomy. We'll cover phenomena occurring at the boundary of our atmosphere and space:

- Aurora
- Meteors
- Noctilucent clouds
- Sprites

3RD MARCH: PART 5 --- OUR MILKY WAY AND OTHER GALAXIES

This will be a session aimed at strategies for navigating the night sky.

- The structure of the Milky Way galaxy.
- Stars, gas and dust
- Types of galaxy

- Redshifted galaxies and evidence for an expanding universe
- Observing and photographing the Milky Way

The cost of the course is £28 including refreshments. Individual sessions can be booked at £7 per session. No previous knowledge is assumed.

To book online, please click:

[Full Course](#)

[Week 1](#)

[Week 2](#)

[Week 3](#)

[Week 4](#)

[Week 5](#)

To book by mail, please fill in the booking form below, and mail to
BEA, 7 Ravensdowne, Berwick-upon-Tweed TD15 1HX
along with a cheque in favour of Berwick Educational Association.

If you have any queries, please email berwickea@gmail.com or phone Cian McHugh
on 01289 303254

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Name

Address

Tel No

Email

Cheque enclosed £

Full Course (£28)

Week 1 (£7)

Week 2 (£7)

Week 3 (£7)

Week 4 (£7)

Week 5 (£7)

