

Introduction to Astronomy - March 2013

(Ballarat Observatory)

Date	Session 1 Topics 5:15 - 6:05 pm	Break 30mins	Session 2 Topics 6:35 - 7:25pm
Day 1 Saturday 2nd March 2013	Basics 1: <ul style="list-style-type: none"> • History of Astronomy • Constellations <i>(dividing the night sky)</i> • Geocentric & Heliocentric Models • The Scientific Method • Kepler & his laws • Newton & Gravity 		Basics 2: <ul style="list-style-type: none"> • Astronomical Distances • Nature of Light • Doppler Effect • Magnitude scale • The Inverse square law • Naming of stars Practical session Constellations
Day 2 Saturday 9th March 2013	Celestial Mechanics <ul style="list-style-type: none"> • Celestial Sphere • Celestial Coordinates • Time, Seasons • Phases of the Moons • Tides • Transits & Eclipses 		Our Solar System <ul style="list-style-type: none"> • Planets • Meteoroids, Meteors, Meteorites • Asteroids & Comets • Asteroid Belt, Oort Cloud, Kuiper Belt • Origins of the Solar System • Titus-Bode Rule
Day 3 Saturday 16th March 2013	Stellar Astronomy/ Astrophysics <ul style="list-style-type: none"> • Our Sun • Life cycle of Stars • Star Clusters • HR Diagram and the Classification of Stars • Binary Stars, Variable Stars, Neutron Stars, Pulsars, Supernovae 		Tools of Astronomy <ul style="list-style-type: none"> • Types of Telescopes • How Telescopes work • Resolution & Magnification Practical session List of stars to name/find Constellations and Stars
Day 4 Saturday 23rd March 2013	“Seeing the Unseen Universe” <ul style="list-style-type: none"> • The Night Sky beyond the visible • What are we made of? A journey into the realm of particles 		Galactic, Extra Galactic Astronomy & Cosmology <ul style="list-style-type: none"> • The Milky Way & other Galaxies • Nebulae • Black Holes & AGNs • Hubble’s Law & The Expanding Universe • The Standard Theory of Cosmology • The Dark Universe

BALLARAT OBSERVATORY AND MUSEUM

INTRODUCTION TO ASTRONOMY COURSE

Information

Bring your own dinner or buy a takeaway to have at break or before extended viewing, if fine after 7pm.

Tea/Coffee/Fruit Drink & Biscuits provided at break. Also bring a red torch (not essential), clipboard or similar and pen & pencil and dress warmly as for the snow.

Confirmation of booking and payment by February 27th.

Phone on 03 53 327526 for more information or email to bas@cbl.com.au

Location: Ballarat Observatory Cnr. Magpie and Cobden Sts., Mt. Pleasant.

Payable to Ballaarat Astronomical Society Inc.

Payment to: Ballaarat Astronomical Society Inc. P.O.Box 284 Ballarat 3353

**Direct payment to Commonwealth Bank Acc. Ballaarat Astronomical Society BSB 063 507
Acc.No. 1005 6172 Email remittance to bas@cbl.com.au**

A membership form is on the website or ask for it to be sent by email. Membership entitles 20% discount on shop items, 10% discount at the Third Rock Cafe and free entrance to Observatory on Friday & Saturday and other occasions, discounts to special events, use of library and training on telescopes. Bookings at the Third Rock Café for meals from \$6 Astroburgers to \$25 For 2 course meal.

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Introduction to Astronomy Course

\$100 Adult \$80 Conc. \$60 Student 20% Discount members

(Must fill out membership form with extra payment if not already a member)

Name..... Phone.....

Address.....

Postcode..... Email.....