



**10-DAY CERTIFICATE COURSE TITLED “FOUNDATION COURSE IN
ASTRONOMY & ASTROPHYSICS”**

July 08 – 19, 2019

Department of Astronomy, Osmania University, Hyderabad- 500 007

The Department of Astronomy is organizing the 3rd “**Foundation course in Astronomy and Astrophysics**” (a 10-Day certificate course) in the Department of Astronomy, Osmania University, Hyderabad, during **July 08 – 19, 2019 (Timings 2:30-5:30 P.M)**. The course is aimed to popularize Astronomy in young minds which will help them develop strong foundations in the subject and motivate them to choose it as a career option. The candidates who are pursuing/completed graduation, with Maths, Physics and Computers at intermediate (10+2) level are eligible to enroll in the course. Those who are interested to enroll can register on or before **8th June 2019** by sending their details in the enclosed registration form through mail to coordinator, astronomyatou@gmail.com. **Due to the huge response from the applicants, the intake has been increased to 50. The applicants can send in their details to the above email-id. They can proceed for further registration and the payment of the registration fee only after formal selection (on the basis of eligibility criteria and the available seats) is intimated by the coordinator.** The registration fee is Rs. 3,000 (Rupees three thousand only) to be paid through DD/Online transfer in favor of “Co-Ordinator, Foundation course in A & Ap, OU, Hyd”. The payment can be done through online transfer also to **Ac/No: 37758981088**. The registration fee includes the course work and JRO trip (There is no accomodation facility provided during the course).

HEAD

Department of Astronomy,
Osmania University, Hyderabad.

***Details of the course and Registration form are available in www.osmnaia.ac.in**

Contact Address:

Dr. D. Shanti Priya

Head

Department of Astronomy

Osmania University

Hyderabad

Email: astronomyatou@gmail.com

Ph. No: (O) : 040-27682247

Last Date for Registration: 8-06-2019

Date of commencement of course: 08-07-2019

Date of completion of course: 19-07-2019

REGISTRATION FORM

1. NAME : _____

2. *QUALIFICATION: _____

3. ORGANIZATION: _____

4. DATE OF BIRTH: (dd/mm/yy) _____

5. ADDRESS: _____

6. CONTACT NO: _____

7. E-MAIL: _____

8. REGISTRATION FEE: (DD NO/Transaction ID): _____

Date: _____

9. OTHERS (if any) _____



(*Note: Enclose the proof of education qualification)

Signature of the Candidate

ANNEXURE I

Course details: 10 days (30-hours) certificate course in Astronomy and Astrophysics by
Department of Astronomy, Osmania University.

Course Title: Foundation Course in Astronomy & Astrophysics

Course Schedule:

Eligibility: The course is open to all candidates who are pursuing/completed Graduation with Maths, Physics, Computers at Intermediate (10+2) level and are having an aptitude for Astronomy and Astrophysics. Knowledge of English language is necessary as mode of course will be in English.

Batches: The number of seats in a batch is limited to **50 ONLY**. Admissions will be done on **first- come-first-served basis**.

Schedule for next batch: **Tentatively July**

Duration: **Classroom Sessions:**
2:30 p.m. to 5.30 p.m.

Field Trip: Japal Rangapur Observatory (JRO) - Students will be given an exposure to sky watching during the period of the course.

Course Fees: Rs. 3000

Contact: **Phone: 040-27682247**

Email: astronomyvatou@gmail.com

Course Overview:

Aim

The primary aim of this program is to inculcate a scientific awareness of the subject of Astronomy among the young students and motivate them to pursue careers in Astronomy and Astrophysics. The course work is planned as an extra subject beyond the regular University curriculum. The course includes theory classes, practical/project sessions, field trip to Astronomical Observatory, project presentations. On completion of the course, the students will be awarded certificates with grades based on overall performance.

Course Benefits

The course provides an in-depth knowledge to fundamentals involved in the study of Astronomy and Astrophysics. It will develop strong foundation in the subject which would be a platform for the students seeking higher studies and research work in the subject. It is a domain which will survive for at least another 200 years. As India is involved in many international Astronomy/Astrophysics projects worth billions of dollars, such courses would benefit and encourage the student community to opt for advanced studies.

Faculty

The Lectures will be taken by professors of the department as well as renowned scientists and professors from various scientific institutions and universities in and around Hyderabad.

Course work

Syllabus

The syllabus for the certificate course is framed to understand and cover topics from basics to black holes in Astronomy and Astrophysics. It also involves students working on small projects and presenting the same at the end of the course.

The topics to be covered in lecture sessions:

Basics of Astronomy (Celestial coordinates, Constellations, Time, distances etc.,)

Origin of Life in the universe and its future

Solar system (Including planets and minor bodies like Asteroids, Meteors & Comets)

Stellar evolution (Life of a Star, Exo-planets)

Galaxies and their structure (Einstein's Gravitational waves)

Astronomical instrumentation (TMT, WEBB & other space based telescopes)

High energy Universe (ASTROSAT satellite)

Unsolved mysteries of Universe (Dark energy, Dark matter etc.)

Astrophotography

The Practical sessions include:

Exploring Star charts and identifying constellations

Study of Sunspots

Astronomy with pen and paper

Spectral classification of stars using virtual
observatory Working on archival data (data
available from satellites)

Observing the night sky (identifying constellations and observing planets through
telescope)

Hands on sessions

Astrophotography

Field Trip:

The students will be taken to Japal-Rangapur observatory (JRO) and will be given an exposure to the night sky observation.

Registration and Admission:

Interested candidates may register their names providing their brief bio-data in the Department of Astronomy along with two recent passport size photographs.

The right to admission will solely rest with the Department of Astronomy, OU.

Co-Ordinator,

Foundation course in Astronomy and
Astrophysics,

Department of Astronomy,

Osmania University

An overview of last two foundation courses



Lab session in progress during 2017 Foundation course



Group picture of 2017 Foundation course



JRO trip 2017 Foundation course.



Practical sessions (mini planetarium)2018



Group picture of Foundation Course 2018



Image taken during Astrophotography session at JRO in 2018 foundation course.



Comet making session in 2018