ASTRONOMY CAMP

CENTER
FOR ASTRO, PARTICLE,
AND PLANETARY PHYSICS

JAN 26	*4-4:55pm*	**I. Welcome Session**
	5-5:55pm	**II. The History of Astronomy** Dr. Payaswini Saikia
	6-6:55pm	**III. The Electromagnetic Spectrum** Dr. Roger Hajjar
JAN 27	*4-4:55pm*	**IV: The Moon** Mayssa Elyazidi
	5-5:55pm	**V: The Sun** Dr. Christopher Hanson
	6-6:55pm	**VI. The Solar System** Dr. Mohamad Ali-Dib
JAN 28	*4-4:55pm*	**VII. Exoplanets** Dr. Jasmina Blecic
	5-5:55pm	**IIX. The Birth & Death of Stars *(Part I)*** Dr. Moe Abbas
	6-6:55pm	**IX. The Birth & Death of Stars *(Part II)*** Dr. Moe Abbas
JAN 29	*4-4:55pm*	**X. The Milky Way** Dr. Joseph Gelfand
	5-5:55pm	**XI. Cosmology** Dr. Andrea Macciò
	6-6:55pm	**XII. Final Words & Goodbyes**

**schedule is tenative to minor changes*

ADVISED READINGS

Universe: Exploring the Astronomical World by Phaidon Editors

An Astronaut's Guide to Life on Earth by Chris Hadfield (available in Arabic)

A Beginner's Guide to the Universe by Eric Chaisson and Steve McMillan

The Backyard Astronomer's Guide Hardcover by Terence Dickinson and Alan Dyer

EXPOPLANETS

- Exoplanets, what are they?
- The five used methods to find exoplanets
- Recent discoveries

THE BIRTH & DEATH OF STARS *(PART I)*

- What are Stars?
- How are they formed?
- Nuclear fusion
- Blackbodies
- Temperatures & colors of stars
- Stellar Nebula

THE BIRTH & DEATH OF STARS *(PART II)*

Continuation of the above:

- Spectral Classifications
- The HR Diagram
- Evolution of stars (MS, Giant, Red Giants, White Dwarfs, Supernova, etc.)
- The different scenarios associated with the death of stars (planetary nebula, neutron stars, blackholes)

THE MILKY WAY

- Definition
- The major parts of the MW
- What is it made from?
- Dark Matter & The Rotation Curve

COSMOLOGY

- The origin of the universe.
- The Big Bang
- The expansion of the universe

FINAL WORDS & GOODBYES