Certificate Course in Astronomy

Credit Based and Grading System

to be implemented from the Academic year 2018-2019

Sr. No.	Title	Credits	L/Week
01.	Astronomy-Interactive Sessions	2	2
02.	Night Sky Observation	1	One Full Night

Astronomy

Sr. No	Topics	Duration
	Theory Sessions (30 hours)	
1)	Components of the Universe	3 hr
2)	The Big Bang Theory	2 hr
3)	The Steady State Universe, Oscillating Universe, Hubble Law.	2 hr
4)	Galaxies: Types of Galaxies-Hubble Classification, Evolution of Galaxies.	2 hr
5)	Milky Way Galaxy.	2 hr
6)	Constellations-Aries, Pisces, Orion, Asterism-Summer Triangle and Big Dipper (Sapatarsi)	2 hr
7)	Classification of Stars	2 hr
8)	The Life Cycle of Star.	2 hr
9)	The Sun	2 hr
10)	Planets: (a) The Earth-Radioactive heating, Floating Curst and Continent drift. (b) The Mars (c) The Jupitar (d) The Saturn (e) The Mercury (f) The Venus (g) The Uranus (h) The Neptune	9 hr
11)	The Moon	2 hr
12)	• Night Sky Observation: 12 hours • Group Discussion on Night Sky Observations: 03 hours	15 hr

Reference Books:

1) Fundamentals and frontiers of Astronomy-Jastrow and Thomson
2) Star,Life,Death and Beyond, A.K.Kimbhavi and Jayant Narlikar
3) Stucture of the Universe, J.V.Narlikar
4) Our Solar System,A.W.Joshi,N.Rana
5) Text book of Astronomy and Astrophysics with elements of Cosmology, V.B.Bhatia,Narosa Pub.
6) Astronomy Structure of the universe. A.E.Roy and D.Clarke, Adam Hilger Pub.
7) Introductory Astronomy and Astrophysics-Zeilik and Greogary
8) An introduction to Stellar Structure,S.Chandrashekhar
9) Source book on Space Science,Samual Galsto
10) “Astrophysics: A modern perspective”-K.S.Krishnaswami New Age International.
11) University Astronomy-J.M.Paschoff and M.L.Kutner
12) K.S. Krishnaswami, ‘Understanding Cosmic Panorama’,New Age International.
13) Astronomy:Principles and Practice- A.E.Roy and D.Clarke,
14) Universe-William J Kaufmann,III