

**Second year of Five Years integrated M.Sc. (Mathematics)
M.Sc.-II, Semester-III**

	L	T	P	C
MS 205: BASIC SCIENCE ELECTIVE (BSE) BASICS OF ASTRONOMY AND ASTROPHYSICS	3	0	0	3

- **UNIVERSE AND CELESTIAL BODIES** (18 Hours)
Matter vs Radiation Dominated universe, The early universe, structure formation
Galaxies, Nebulae, Stars, Classification of celestial bodies, other celestial objects
 - **SOLAR SYSTEM** (10 Hours)
Birth, Life and death of a star, H-R diagram, Solar system & its members
 - **EARTH AND ITS ATMOSPHERE** (07 Hours)
Formation and structure of the Earth, different surface features of the earth, earth's
Atmosphere and its different parts, radio window, ozone depletions
 - **SPACE EXPLORATIONS** (07Hours)
Radiation in the universe, its effect on human and other non living mechanisms, types
Space vehicles, manned space explorarions
- (Total Contact Hours (Theory) : 44 Hours)**
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BOOKS RECOMMENDED:

1. **Degaonkar S. S.**, *Space Science*, Gujarat University Press, 1968
2. **Patrick M.**, *Atlas of the Universe*, Cambridge University Press, 2000
3. **Beiser A.**, *Concept of the Modern Physics*, TMH, 2008
4. **Mukhanov, M.**, *Physical Foundations of Cosmology*, CUP, 2005.
5. **Islam, J. N.**, *An Introduction to Mathematical Cosmology*, CUP, 2004.

