

B. Sc. - Semester – III

SKILL ENHANCEMENT COURSE (SEC)

ASTROPHYSICS AND MEDICAL PHYSICS

(Credit-2)

UNIT- I: ASTROPHYSICS

1 Telescopes

- 1.1 Early telescopes and the use of lenses
- 1.2 Astronomical telescope consisting of two converging lenses
- 1.4 Reflecting telescopes
- 1.6 Resolving power of telescopes
- 1.7 Collecting power of telescopes
- 1.8 Radio telescopes
- 1.9 Infrared, ultraviolet and x-ray telescopes
- 1.11 Charged-coupled devices in astronomy

- Text Book: **Physics Astrophysics AQA A-Level Year 2** By Chris Bishop, Harper Collins Publishers

UNIT -II: MEDICAL PHYSICS

1. Introduction to Medical Imaging

- 1.1 Radiography (X-ray imaging)
- 1.2 Contrast materials
- 1.3 Computed tomography
- 1.4 Ultrasound
- 1.5 Scintigraphy (nuclear medicine)
- 1.6 Magnetic resonance image
- 1.7 Hazards associated with medical imaging

- Text Book: **Imaging for Students** by David A. Lisle (Fourth Edition)

SHRI GOVIND GURU UNIVERSITY, GODHRA
B.Sc. ZOOLOGY - SEMESTER-IV
SKILL ENHANCEMENT COURSE (SEC) – THEORY
BSC23SE404
(Lac culture)

Total Credit - 02

02 Lectures/Week

UNIT	TOPICS	CREDIT	HOURS
Unit-I	<ul style="list-style-type: none"> • Introduction of Lac culture • Classification of Lac insect (<i>Tachardia lacca</i>) • External features and Life cycle of <i>Tachardia lacca</i> • Host plants for lac culture • Cultivation of Lac <ul style="list-style-type: none"> - Pruning - Inoculation - Harvesting 	1	15
Unit-II	<ul style="list-style-type: none"> • Lac cultivation Methods <ul style="list-style-type: none"> - Coupe system - Alteration of plants • Composition and Properties of Lac • Enemies of Lac culture • Economic importance of Lac 	1	15

References:

1. Applied Zoology: N. Arumugam, T. Murugan, J. Johnson Rajeswar and R. Ram Prabu, Saras Publication
2. Economic Zoology: Sagarika Chaudhuri, New Central Book Agency.
3. Economic Zoology: G.S. Shukla and V.B. Upadhyay, Rastogi Publication.