SECOND YEAR OPEN ELCTIVE
REVISED SYLLABUS ACCORDING TO CBCS NEP2020

COURSE TITLE: ASTRONOMY-I OUR SOLAR SYSTEM
SEMESTER-III,
W.E.F. 2024-2025

Recommended by the Board of Studies in PHYSICS
And
Approved by the Academic Council

Devrukh Shikshan Prasarak Mandal's
Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and
Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh.
Tal Sangmeshwar Dist Ratnagiri-415804 Maharashtra India

Academic Council Item No: _____

Name of the Implementing Institute	:	Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh. Tal. Sangmeshwar, Dist. Ratnagiri-415804,
Name of the Parent University	:	University of Mumbai
Name of the Programme	:	Bachelor of Arts and Commerce
Name of the Department	:	Physics
Name of the Class	:	Second Year
Semester	:	Third
Paper	:	Open Elective
No. of Credits	:	02
Title of the Course	:	Astronomy-I (Our Solar System)
Course Code	:	PHOE301
Name of the Vertical in adherence to NEP 2020	:	Open Elective
Eligibility for Admission	:	For students in second year of graduation of arts and commerce.
Passing Marks	:	40%
Mode of Assessment	:	Formative and Summative
Level	:	UG
Pattern of Marks Distribution for TE and CIA	:	60:40
Status	:	NEP-CBCS
To be implemented from Academic Year	:	2024-2025
Ordinances /Regulations (if any)		

Syllabus for Second Year of Bachelor of Science

(With effect from the academic year 2024-2025)

SEMESTER - III **Paper No.– OE**

Course Title: Astronomy-I (Our Solar System) **No. of Credits - 02**

Type of Vertical: Open Elective **COURSE CODE: S307PHT**

Learning Outcomes Based on BLOOM's Taxonomy:

After completing the course, the learner will be able to…

Course Learning Outcome No.	Blooms Taxonomy	Course Learning Outcome
CLO-01	Remember	understanding of fundamental concepts in astronomy ,the Sun, the solar system, and celestial phenomena,
CLO-02	Understand	Comprehend the lifespan of the Sun and its implications for the future of the solar system.
CLO-03	Understand	Develop critical thinking skill by interpreting observations and evaluating theories related to the Sun, solar system, and celestial events.
CLO-04	Apply	Able to analyze and compare various methods of timekeeping.
CLO-05	Apply	able to apply their understanding of basic astronomical concepts and chronological systems to real-world scenarios,

COURSE CONTENT			
Module	**Content**	**Credits**	**No. of Lectures**
1	**Basic concept** What is Astronomy? development of Astronomy, Astronomical Units ,Hierarchy of Universe, Motions of Earth, Blue colour of sky, Bloody sun **मउह(3,16,22)** **The Moon** Birth and composition of Moon, Moon's atmosphere, Arts of the Moon (Chandrodaya), Lagrange point, Constituent alliance, Moonlight Eclips **मउह:- 39 to 47 and 59 to 65** **Chronological systems** Objectives and Scope , Chronological systems in different countries, Indian Chronological System, Panchang,Standard Time and Local Time, Gregorian and Caesar Chronology **मउह :- 25,26,28,37,38 काम ;- chap-1 ,2,3,4**	**01**	**15**
2	**Sun and solar system** Sun and sun's composition, The average size of the image of the Sun and the Moon, Lifespan of the sun, solar wind, concept of planet, Interplanetary and extra-terrestrial, Distances of planets, Alliance periods and their types, reflection ratio, Retrograde, Mercury, Venus, Saturn ,Jupiter Comet, meteor shower, Comets and Earth **मउह:- 66 to 88** ,	**01**	**15**
	Total	**02**	**30**

REFERENCE BOOKS:

1) **Fundamental of Astronomy H Karttuen P kroger, H Oja etc （FA）**
2) **कालाचा महिमा (काम) - मंदार दातार**
3) **अन्तरिक्षच्या अंतरंगात- जयंत नारळीकर (अअं)**
4) **मला उत्तर हवंय (खगोलशास्त्र) - ह. ना. आपटे (मउह)**

Access to the Course

The course is available for all the students admitted for Second Year Bachelor of Arts and Commerce.