

Shiksha Mandal's
Bajaj College of Science, Wardha (Autonomous)
Syllabus for B. Sc. II (SEM-III & IV) w.e.f. 2024-25
Generic Elective (GE-II)
Course: MUSIC AND MUSICAL INSTRUMENTS
(Credits: 02) (30 Hours)

Course Description:

This course can be taken by undergraduate students as an open elective/generic course. This course will introduce the fundamental concepts of music, the characteristics and working of different types of musical instruments. It will also introduce the basics of electroacoustics.

Course Objectives:

The goal is to present fundamental ideas about the physics of sound and musical instruments, as well as to introduce different kinds of musical instruments and their underlying principles.

Course Learning Outcomes (COs):

Upon completion students will be able to:

CO1: Understand the theory of production of sound and their characteristics.

CO2: To demonstrate a basic understanding of the fundamental concepts of music, including rhythm, melody, harmony, and timbre.

CO3: To identify and describe the characteristics of various types of musical instruments, including their construction, and playing techniques.

CO4: Students will be able to apply this knowledge to analyse and appreciate different styles of musical instruments.

CO5: Knowledge of the characteristics and design of transducers such as microphones and loudspeakers

CO6: Understanding of the principles of room acoustics

Course Contents:

Unit I: Music

Introduction to sound and its characteristics, music theory, harmony, melody, chords, dissonance, and musical scales. (10 Hours)

Unit II: Musical Instruments

Physics of percussion Instruments, string Instruments, wind Instruments, electronic instruments. Live demonstration on the instrument. (10 Hours)

Unit III: Electroacoustics

Transducers and their characteristics, Microphones and their types, Loudspeakers and their types, Room acoustics. (10 Hours)

Reference Books:

- Sound and Acoustics by Brijlal and Subramaniam, S.Chand Publications
- Musical Instruments of India: Their History and Development by B. Chaitanya Deva
- The Fundamentals of Music by Jane Smith

Note: Mode of evaluation:

End semester examination + Continuous Internal Assessment(Poster presentation / Project/ Presentation/ Assignment/ quiz)

Total Mark: 50

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