**Syllabus Plan**

Session: 2024-25

B.Ed.- 1st Year Subject: Pedagogy of Physical Science

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| Month | Topics |
| Sept. 2024 | Nature, Concept & Scope of Physical Sciences and its place in the school Curriculum. |
| Oct. 2024 | History of Physical Science with special emphasis on Teaching of Physical Science, Aims and Objectives of Teaching Physical Science, Differentiate between the terms ‘ Aims and Objectives, Aims of teaching Physical Science at Middle, Secondary and Senior Secondary stages. Bloom’s Taxonomy of educational objectives. |
| Nov. 2024 | Instructional Objectives of teaching Physical Sciences at the school stage and their formulation. Physical Science Teacher: Qualities & Responsibilities. Need for Professional Orientation. |
| Dec. 2024 | Development of Teaching Skills through Micro teaching (Probing Questions, Introducing the Lesson, Explaining, Illustration with examples, Using Chalkboard and Stimulus Variation). Methods of teaching Physical Science (Lecture cum Demonstration method, Project Method and Problem solving method). Aids, Equipments and Assistance in teaching Physical Science. |
| Jan. 2025 | Need and utilities of Physical Science Laboratory. Preparation and use of Teaching Aids. Unit and Lesson Planning. Popularization and propagation of Physical Science through Science Exhibition, Science Magazine, Science Trip and Science Quiz. |
| Feb. 2025 | E-Teaching of Physical Science using technology for self learning and collaborative learning of science. Pedagogical Analysis of contents in Physical Science: Contents Analysis, Pedagogical Analysis and their comparison. Study of items: Division of units into sub-units, Teaching requirements, Instructional objectives, Teaching strategies, Previous knowledge testing, Topic announcement, Concepts of contents, Presentation, Teaching aids use, Demonstration experimental verification, Thought provoking questions and Criterion based tests. |
| March. 2025 | Pedagogical Analysis of the following topics: Atomic Structure, Energy and its types, Environment and Pollution. Water as a Universal Solvent, Transmission of Heat, Magnetism, Friction. |
| April 2025 | Evaluating Outcomes of Physical Sciences Teaching: Indicators of Quality Learning and Major Issues in Classroom Learning with special reference to Physical Sciences. Concept of Test, Measurement and Evaluation. Differentiate between the terms ‘Examination’ and ‘Evaluation’. |
| May 2025 | Qualities of a good test, Principles and steps in construction of an achievement test, Blue Print and Question Paper, Item analysis, Construction of multiple choice questions, Diagnostic test, Remedial teaching in physical sciences. Continuous and comprehensive evaluation, Formative and summative assessment, Grading pattern.  Selection of appropriate evaluation technique and Revision of syllabus |
| June 2025 | Examinations and Summer Vacations |

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