

SEMESTER - IV**CPS 2 d – Part IV - PEDAGOGY OF PHYSICAL SCIENCE****Credits: 2****Internal: 20 marks****Hours/Week: Theory-2hrs & Practical-3hrs****External: 30 marks****Total: 50 marks****Course Learning Outcomes:****At the end of the course, the Student-teachers will be able to**

- summarize learner-controlled instruction, collaborative and co-operative learning effectively
- predict the curricular development in Physical Science;
- explore the linkage of Physical Science with community life;
- prepare a report on the organization of co-scholastic activities;
- construct modules in Physical Science;
- analyse and draw inference on various websites related to Physical Science;
- prepare a report on the maintenance of records and registers in schools;
- write a report on the environment context of their co-operative schools; and
- include field trips for enrichment of the teaching-learning process.

Unit I: Learner Controlled Instruction, Collaborative and Co-operative Learning

Learner Controlled Instruction: Introduction - need and origin – meaning - nature and definition - steps involved - advantages and limitations, Collaborative Learning – Introduction - meaning and definition - procedure involved - Computer supported Collaborative Learning - Team based learning - Group problem solving - advantages and limitations , Co-operative Learning – Introduction – definition - basic assumptions and features - procedure involved- Academic benefits - Psychological benefits - Social benefits - obstacles involved in Co-operative learning.

Unit II: Curricular Development in Physical Science

Curriculum: Meaning and Definition- Principles of curriculum construction- Criteria for selection of content- Curriculum improvement projects in India- Curriculum improvement projects abroad- CHEM Study – PSSC - CBA.

Unit III: Linkage of Physical Science with Community Life

Linkage of School with Community- Organization of Seminars, Symposiums and Workshops in Science utilizing the resources of the community (Human and Material)- Field trips to places of Science interest: Planetarium – Museum - Space Centers – Industries - Organization of Science Fairs - Improvised Apparatus.

Suggested References:

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